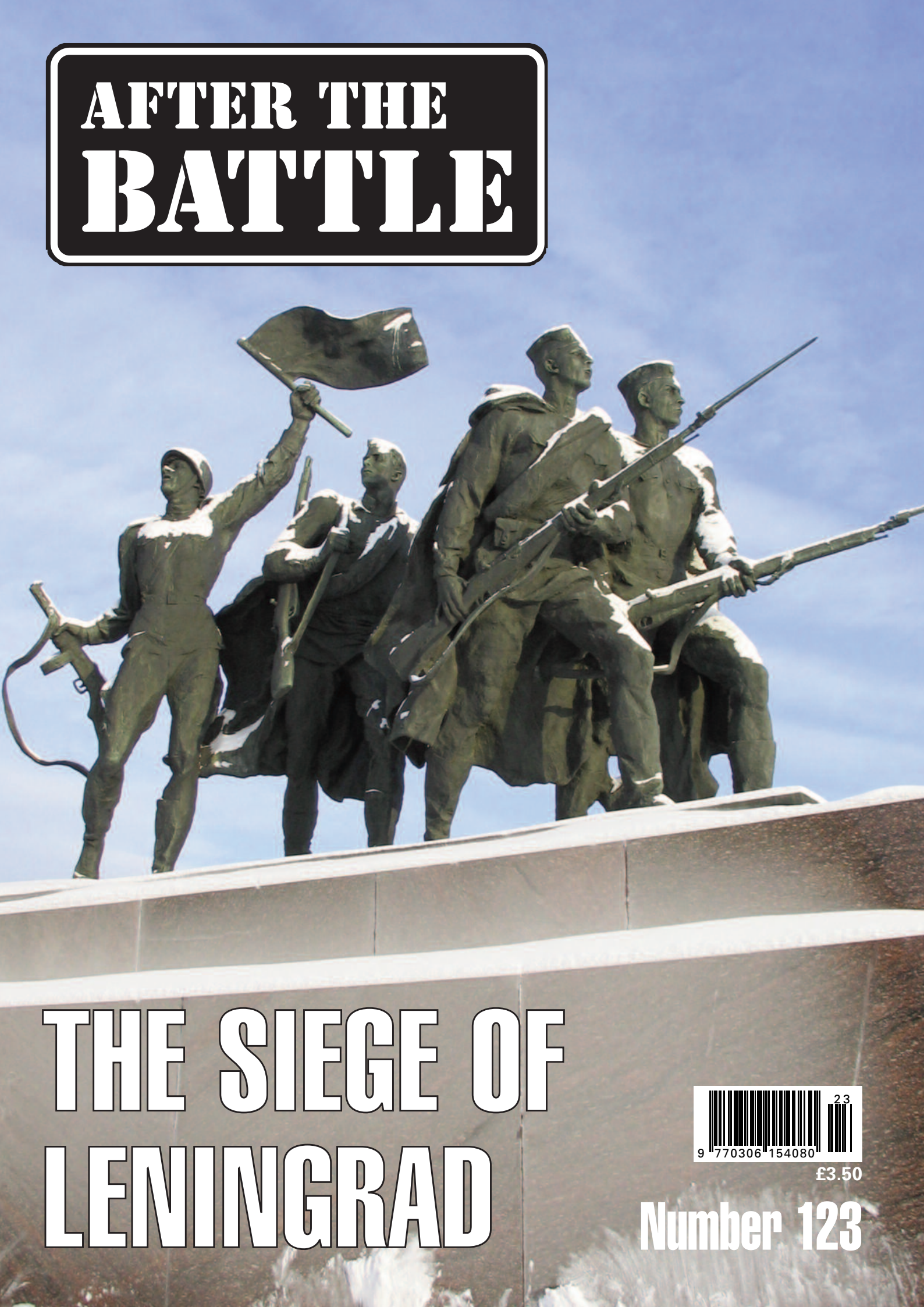
AFTER THE BATTLE



THE SIEGE OF LENINGRAD

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CONTENTS

THE SIEGE OF LENINGRAD 2

PRESERVATION
How Churchill and Wren came to Missouri 34

UNITED KINGDOM
The Admiralty Citadel 38

IT HAPPENED HERE
The Death of General Andrews 46

Front Cover: The 'Monument to the Heroic Defenders of Leningrad' stands in Victory Square, at the southern end of Moscow Prospect. Here on July 8, 1945, the troops of the former Leningrad Front entered the city marching through a specially erected triumphal arch to take part in the victory parade. The monument was unveiled in 1975. (Vladimir Skvortsov)

Centre Pages: The little fortress island of Oreshek, located 25 miles east of Leningrad at the start of the Neva river, was held by Soviet sailors throughout the blockade, the defenders withstanding massive German shelling and bombardment. Today, the ruined fortress is preserved as a memorial to that heroic fight. (Ron Hogg)

Back Cover: From first burial in Reykjavik to last resting place in Washington. The remains of Lieutenant General Frank Andrews, the commander of the European Theater of Operations who was killed in Iceland in May 1942, were transferred to Arlington National Cemetery in November 1947. The general now lies in grave 1883-A in Section 3. (Joe Weber)

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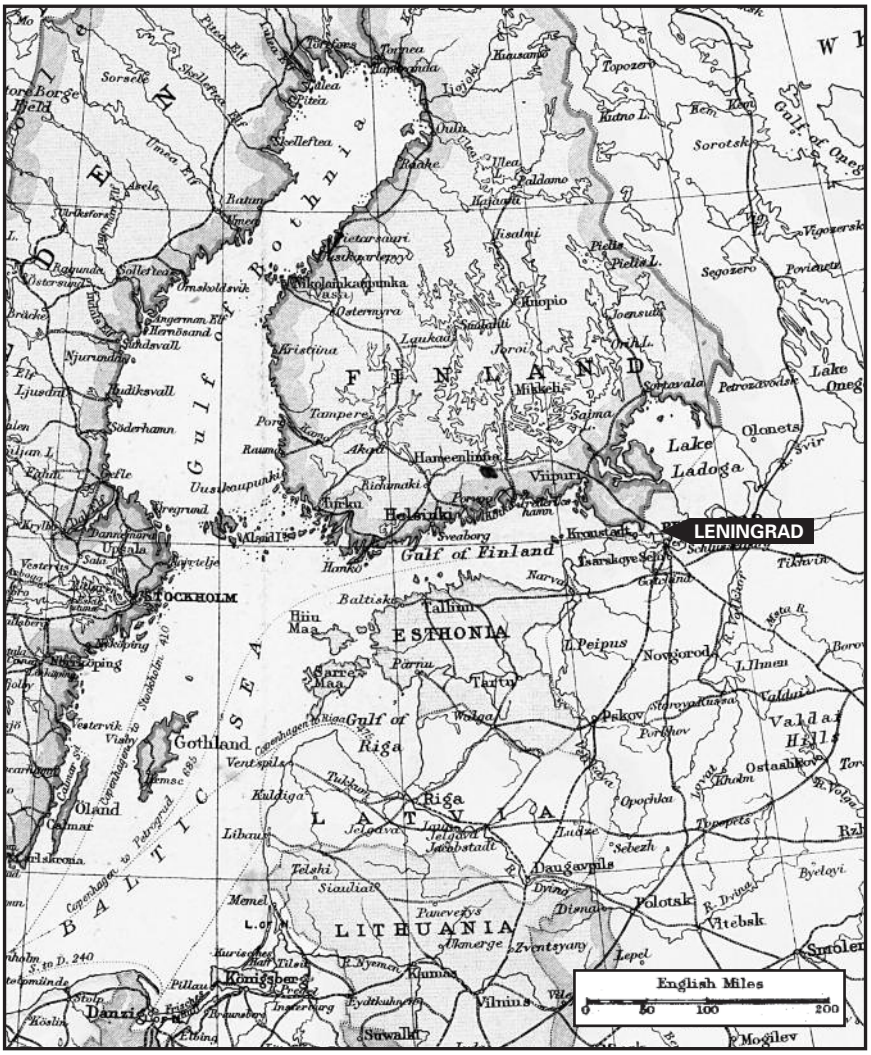


The siege of Leningrad was the longest ever endured by a modern city, and the deadliest siege in recorded history. It lasted for nearly 900 days, from late August 1941 to late January 1944, bringing unparalleled hardship to the population. Out of over three million persons in the city more than one million lost their lives through cold, disease and starvation, bombs and artillery fire. The severe winter of 1941-42 was by far the worst period of the siege, when food reserves ran out, rations dropped to a little over three ounces of bread per person per day and regular supplies of water, fuel, and electricity stopped. Its epic suffering and endurance earned Leningrad the title of 'Hero City of the Soviet Union'.

Leningrad, today known again as St Petersburg, is situated at the head of the Gulf of Finland on a number of islands in the mouth of the River Neva which flows from Lake Ladoga, east of the city, to the Gulf of Finland in the west. Originally inhabited by the Swedes, the area — low lying, swampy and with a very severe climate — was conquered by Russia during the Great Northern War (1700-21) fought between Sweden and a coalition of countries led by Russia. In 1703, Russian Tsar Peter the Great chose a site on Zayachiy (Hare) Island in the Neva to build a defensive fortress and eventually a new city was constructed to be a 'window on the West' for the country.

At first only a crude earthwork, the fortress was replaced in 1706-25 by a new four-metre-thick brick wall construction and later a granite slab facing was added. Known as the Peter and Paul Fortress, it housed the city's first prison and a cathedral with a beautiful soaring spire 122 metres high (which was to make an excellent artillery reference point for future invading forces). Construction of the fortress was followed by the construction of the Kronstadt naval base on one of the Neva delta islands 15 miles to the west of the city and then attention was given to the construction of the many splendid palaces, wide boulevards, grandiose squares, and elegant canal and river bridges, which evoked comparisons with other great cities such as Venice and Paris.

Peter the Great took up residence in the city in 1712 and for two centuries St Petersburg was the capital of the Tsarist Empire. In August 1914, at the start of World War I, the city renounced its Germanic-sounding name and became Petrograd, and as such it was the cradle of the revolutions that overthrew Tsarism and brought the Bolsheviks to power in October 1917. In 1918, the communists transferred the seat of government from Petrograd to Moscow. Five years later, in January 1924, they renamed the city to Leningrad in honour of Vladimir Ilyich Lenin, the revolutionary.

Besides being a political and cultural centre and Russia's prime naval port, Leningrad was also an industrial hub. Industry in the city prior to the blockade included over 520 factories producing armaments, chemicals, textiles, ships, diesel engines, machinery, machine tools and other items. The armaments factories were well established and had a long history of producing military equipment such as artillery, tanks and armoured cars, small arms and ammunition, artillery shells and chemicals.

On June 27, 1941, five days after the start of the German invasion (Operation 'Barbarossa'), the Leningrad City Council Executive Committee mobilised every able-bodied citizen — men and women — to erect defensive works on the approaches and inside the city itself. These women are building a barricade on Moscow Prospect. This avenue, the largest in the southern district of Leningrad and leading straight to the heart of the metropolis, was the most likely point of entry of any German force trying to advance into the city. We are looking north, back toward the centre. (Novosti)

THE SIEGE OF LENINGRAD

By Karel Margry and Ron Hogg

Strategically and militarily, Leningrad was ill placed, located as it was on the narrow Karelian Isthmus, hemmed in between the Gulf of Finland on its western side and the huge Ladoga Lake on its eastern side. The latter, one of the largest lakes in Europe, almost isolates the city from the rest of the country.

Leningraders possessed — and still possess today — a strong pride in their city, which they regard as the most sophisticated and outward looking of all Russian cities. They tend to somewhat look down on the rest of Russia and to cherish a position of independence vis-à-vis Moscow.

We could not have produced this story without the invaluable help of two native Leningraders, Vladimir Skvortsov and Tatiana Yeliseyeva. All present-day comparison photos were taken by Vladimir, ably assisted by Tatiana. Vladimir was born and raised in Leningrad while Tatiana, although born in the south of Russia, has spent most of her life in the city. Encouraged by Ron Hogg to look into the history of the blockade, they were able to readily identify many of the locations of the wartime pictures and in an excellent position to research the more difficult ones.

Defensive work within the city itself began in late July and accelerated on September 2 when the German forces reached the southern outskirts. Here, a civilian labour detail is converting a department store on Starinevski Prospect into a strong point. With its complex of deeply echeloned defences, incorporating trenches, pillboxes, bunkers, obstacles, and anti-artillery, anti-tank and anti-aircraft positions, Leningrad set new standards for the defence of a modern major city.

OPERATION 'BARBAROSSA'

On June 22, 1941, Germany began the invasion of the Soviet Union (Operation 'Barbarossa'). Three army groups attacked across a wide area from the Baltic to the Black Sea: on the left wing Heeresgruppe Nord began an advance along the Baltic coast towards Leningrad; in the centre Heeresgruppe Mitte started a main thrust aiming for Moscow; and on the right Heeresgruppe Süd pushed towards the Ukraine and the Don Basin.

Heeresgruppe Nord under Generalfeldmarschall Ritter von Leeb consisted of two infantry armies and one panzer army. In the line from north to south were the 18. Armee under Generaloberst Georg von Küchler with eight infantry divisions; Panzergruppe 4 under Generaloberst Erich Hoepner with three armoured and five infantry divisions; and the 16. Armee under Generaloberst Ernst Busch with ten infantry divisions. Counting follow-up divisions, von Leeb had under his command a force of half a million men in 30 divisions. He also had 430 aircraft available for operations. The mission of the northern army group was to destroy the enemy forces operating in the Baltic area and to capture Leningrad and the Kronstadt naval base. Hitler had given von Leeb a clear directive to raze the city of Leningrad and make it completely uninhabitable, thus avoiding having to divert resources to feed the population during the coming winter.

The army group had a long way to go, the distance from East Prussia to Leningrad being some 500 miles. Von Leeb's plan was to launch Hoepner's Panzergruppe 4 on a single concentrated panzer strike to Leningrad, protected on both flanks by the two infantry armies. For this task Hoepner had two armoured corps. Operating on the left would be the XXXXI. Panzerkorps under Generaloberst Hans Reinhardt, comprising the 1. and 6. Panzer-Divisions, the 36. Infanterie-Division (mot.) and the 269. Infanterie-Division; on the right would be the LVI. Panzerkorps under Generaloberst Erich von Manstein, with the 8. Panzer-Division, the 3. Infanterie-Division (mot.) and the 290. Infanterie-Division. In reserve would be the motorised SS-Totenkopf-Division.

Opposing Heeresgruppe Nord along the border was the Baltic Special Military District (renamed North-Western Front after the start of hostilities) commanded by Colonel-General F. I. Kuznetsov. His three armies — the 8th, 11th, and 27th — comprised 28 infantry divisions and three mechanised corps, with a strength of 1,000 tanks. Defending the territory around Leningrad was the Leningrad Military District (soon to be renamed Northern Front, then Leningrad Front) under Lieutenant-General Markian M. Popov, which included the 7th, 14th and 23rd Armies with a total of 15 divisions.

Starting out from East Prussia on June 22, Heeresgruppe Nord's panzer spearheads made rapid progress through Lithuania. Soviet forces defending the frontier or launching counter-attacks were overwhelmed, or pushed back. By June 30, the German tanks had covered 150 miles and secured bridgeheads over the Dvina river, the first major obstacle on the road to Leningrad, where they paused to regroup.

A perfect comparison taken by Vladimir in the summer of 2003.

LENINGRAD PREPARES FOR SIEGE

Meanwhile, Leningrad awaited its uncertain future. The defence of the city was led by a committee of three men: Lieutenant-General Markian M. Popov, commander of the Leningrad Front; Peter S. Popkov, the Mayor of Leningrad (his official function was Chairman of the Leningrad City Soviet); and Andrei A. Zhdanov, the chief of the Communist Party in Leningrad. Within this troika, Zhdanov was the most influential. A loyal supporter of Stalin, he had been party boss of Leningrad since 1934 and a full member of the Politburo, the ruling body of the Communist party, since 1939. Considered by many a likely candidate to succeed Stalin in the case of his death, he was one of the most powerful men in the Soviet Union.

The defence of Leningrad benefited from two factors. One was the unusually high degree of political organisation already existing in the city: about 200,000 of its inhabitants were members of the Communist Party and another 300,000 teenagers belonged to the Komsomol (Young Communist League); a high proportion of the industrial workers in the city was closely organised too. Another factor was the fervent local patriotism among the ordinary citizens. There was a strong feeling among the populace that their city was in danger and must be defended at all cost.

On June 27 — five days after the start of the German invasion — the city Soviet issued a decree mobilising the entire population of men between 16 and 50 and women between 16 and 45 for defence work. A large part of the conscripted force was put to work constructing a triple ring of fortifications around the city. Unaccustomed to such hard work, lacking proper work clothes and shoes, and equipped with only the simplest of hand tools, an army of hundreds of thousands of men, women and teenage children worked in unbroken 12-hour shifts. Constantly improved, by early September, the three separate lines encompassed 630 miles of earth walls, 400 miles of anti-tank ditches, 185 miles of wooden abatis, 5,000 machine-gun nests and 370 miles of barbed-wire entanglements. At the same time, an elaborate network of barricades, road-blocks, concealed pillboxes and strong points was built up in the city suburbs. Air raid shelters for 918,000 persons had been built and trenches for another 672,000.

At the same time, a large part of the male population of the city was mobilised into the so-called Opolcheni — Peoples Volunteer Militia. Zhdanov's call for volunteers to enlist in militias went out on June 27. The population responded with great enthusiasm and zeal. Over 10,890 volunteers signed up for service on the first day of registration, June 30.

Left: **Also in late June 1941, the city and Communist Party authorities formed the People's Militia (narodnoye opolcheni) to create additional military forces to defend the city. The volunteers were used to make up rifle divisions, machine-gun battalions, partisan battalions and armed workers' detachments. About 107,000 workers received military training during July and August 1941 while on the job, and then formed armed detachments on the basis of one company per factory shop or section. By November 1, the Party had formed 123 such detachments comprising 15,460 worker-soldiers. Here, a workers' detachment marches across Old Kalinkin Bridge, one of the city's oldest bridges crossing the Fontanka river. (Novosti)** *Right:* **The Fontanka is in fact a branch canal from the wide Neva river and circumvents the city centre to the south. The Old Kalinkin Bridge is the westernmost of the bridges connecting the centre with the southern parts of the city.**

Left: **Volunteers from the Kirov metallurgical plant march past the Narva Gate, the triumphal arch commemorating the Russian victory over Napoleon in the war of 1812. This picture is one of many taken by Boris Kudoyarov, the only reporter to spend the entire period of the seige in Leningrad. A photographer/reporter for *Komsomolskaya Pravda*, Kudoyarov was sent to Leningrad from Moscow on the first day of 'Barbarossa' but, unable to travel by air, he went by train across Vologda, detouring around Lake Ladoga to reach the city. For the next two and a half years he lived and suffered with the inhabitants, photographing the fighting near the city and everyday life in the streets, factories, schools and homes. In all he took some 3,000 photographs, a unique pictorial testimony to the heroic defence of Leningrad and the suffering of its inhabitants. (Novosti)** *Below:* **The Narva Gate stands in Stachek Square, which is in fact a mile down the road from the Old Kalinkin Bridge seen in the previous pictures. The volunteer soldiers are on Stachek Prospect, which leads straight to the Kirov factory.**

By July 6, 100,000 had enlisted and next day this total had reached 160,000, including 32,000 women, 20,000 Communists and 18,000 Young Communists. The original plans to form 15 Opolcheni divisions proved too ambitious, for to enlist so many male factory workers would mean a dangerous reduction of the city's industrial output. Nevertheless, between July 5 and 19, four Opolcheni divisions were formed. Their preparation for battle occurred in great haste, chaos and improvisation. There was an acute shortage of weapons, no uniforms, not enough time to properly train the men, and few of the officers had any previous command experience.

The 1st (Kirov) Division of Volunteers — some 12,000 strong and named after the Kirov machinery plant from which many of its soldiers originated — already left Leningrad for the front line by train on July 10, just six days after it had been formed. Each man had been issued with hand grenades and Molotov cocktails, but there were not enough rifles for everyone. Machine guns, mortars and artillery were also in short supply. Many of the men had only a pick, shovel, axe or hunting knife as a weapon. Those without a weapon were instructed to pick one up from a casualty at the first opportunity. The other militia divisions soon followed.

In late June, the city authorities began the

Left: **Leningrad was a centre of Soviet tank production, both the Kirov and Izhora factories manufacturing tanks and armoured vehicles. Despite the worsening conditions, production continued through the autumn of 1941, 491 tanks rolling off the Kirov assembly lines alone before the end of the year. Here a KV-1 rumbles through the triumphal arch of the General Staff Building on Palace Square on its way to the front. The graffiti on the turret reads: 'We will defend the gains of the October revolution'. Evacuation of the tank factories to the Ural region began in August 1941, continuing up until the Germans closed the evacuation routes in September. Although not everything had been brought out, in due course the Kirov and Izhora factories resumed tank production at Cheliabinsk and Sverdlovsk in the Urals. Due to the blockade and the resulting shortage of raw materials, power cuts, and the decimation of the labour force, all production of fighting vehicles in Leningrad came to a standstill. (Novosti)** *Right:* **The General Staff Building arch, built to celebrate Russia's victory in the Napoleonic Wars, stands unchanged. Rising in the background is the Alexander Column, another memorial to the 1812 victory, with the Winter Palace behind.**

evacuation of women and young children from the threatened city. As seemed inevitable under such circumstances, lack of coordination, bureaucratic chaos and official incompetence played its part. Thousands of children were put on trains, but for some inexplicable reason the trains were sent south-west, to Pskov and Novgorod, straight towards the advancing German armies. Even after enemy air attacks on the trains had made casualties among the children, the authorities senselessly carried on with the evacuation. Eventually, the children were brought back to Leningrad and new trains organised to send them off, this time to Kirov and Sverdlovsk. Even then many of the trains spent days waiting in marshalling yards. When the Germans closed the ring around Leningrad in early September, there were still some 400,000 children inside the city.

The authorities also undertook to evacu-

Left: **Evacuees assembling in front of Moscow Railway Station on Ploschad Vosstania (Insurrection Square). Shortly after the start of the German invasion the city authorities began evacuating women, children and the aged to safer areas, but these early evacuations were badly handled. Once the Germans sealed off the city and winter set in, evacuation became much more difficult, although it never ceased altogether. Massive displacement of the population only became possible again in early 1942, and some one million people — about half of Leningrad's surviving citizens — were brought out during the spring and summer months.** *Right:* **Vladimir's comparison was taken with his back to the station. The thin-spired metro station seen across Vosstania Square is post-war, having been opened in 1955.**

Left: **Soldiers march past the Admiralty building. Standing on the Neva waterfront at the convergence of the city's three main avenues — Nevsky Prospect, Ghorokovaya Ulitsa and Voznezenskiy Prospect — and with its slender gold-sheathed spire rising high above its 407-metre-long façade, the building is still one of the main landmarks in Leningrad. (Novosti)** *Right:* **The small street along which the troops once marched is Admiralty Drive.**

ate old people from the city. The pensioners were seen as an unnecessary burden to the city's food reserves — 'useless mouths to feed'. Many did not want to leave, but the authorities forced them to. Their departure was equally badly handled. Many of their trains only got as far as Rybatskoye, just six miles outside the city, only to be stranded there for days on end before they could finally roll on. Evacuating the young and old had little effect on the total number of people to be fed, for their place was quickly taken by the thousands of refugees streaming into the city from towns and villages threatened by the German onslaught.

At the same time, following Stalin's decree to save the country's industry, plants and workshops were being evacuated to the Russian hinterland. Entire factories were dismantled, their machines and tools put on trains and despatched to the East. Here again, many trains did not make it and ended up marooned in various marshalling yards, leaving the industrial equipment to rust away.

Measures were also taken to protect the

The Neva river and its tributaries divide Leningrad into a series of islands. This map shows the main locations: [1] Army HQ. [2] Hermitage. [3] Admiralty. [4] St Isaac's Cathedral. [5] Main Post Office. [6] NKVD HQ. [7] Main Water Works. [8] Smolny Institute. [9] Kazan Cathedral. [10] Gostiny Dvor. [11] Moscow Railway Station. [12] Electric Power Station. [13] Marti Shipyards. [14] Vitebsk Railway Station. [15] Electric Power Station. [16] Baltic Railway Station. [17] Warsaw Railway Station. [18] Main Gas Works and Electric Power Station. [19] Kirov Flourmill. [20] Kirov Works. [21] Badayev Food Warehouses. [22] Lenin Works. [23] Elektrosila Works. [24] Liteiny Bridge. [25] Finland Railway Station. [26] Military Medical Academy. [27] Stalin Works. [28] Peter and Paul Fortress. [29] Zoo. [30] Botanical Garden. [31] Baltic Shipyards. [32] Electric Power Station. [33] Army Food Storage. [34] Stadium. Black dots indicate areas of major damage from German air and artillery bombardment.

Like all great cities, Leningrad was rich in statues and sculptures. To protect these priceless works of art against damage from shelling or bombing, they were either removed to safe storage or clad in protective covering. Here a labour detail of men and women work to construct a blast protection around the equestrian statue of Peter the Great on Ploschad Dekabristov (Decembrists Square). St Isaac's Cathedral in the background. (Novosti)

city's numerous works of art. Statues and sculptures in squares and parks were sandbagged and clad with protective shuttering. The priceless treasures of the Hermitage Museum were packed in crates and shipped to Sverdlovsk.

Though the city was now a hub of feverish activity, the war itself initially seemed far away. It was summertime and to most people in the city the only signs of the approaching war were a few high-flying aircraft and the occasional sound of distant artillery. However, as summer progressed, the people could daily hear the gunfire drawing nearer. It was apparent to all that, unless defences could be rapidly constructed and held, the Germans would soon be at the gates of the city.

RENEWED GERMAN OFFENSIVE

On July 2, Heeregruppe Nord started the second stage of its advance, when it struck out from its bridgeheads across the Dvina. The line of advance from that river to Leningrad is seriously constricted by two big lakes — Lake Peipus along the old Estonian-Russian-border and Lake Ilmen further to the east — so the renewed offensive aimed for the 'land bridge' between these two water expanses. On July 4, Panzergruppe 4 reached the Velikaya river that flows northward into Lake Peipus and which marked the pre-1939 border with Latvia. Three important towns lie on its banks: from north to south, Pskov, Ostrov and Opochka. Reinhardt's XXXXI. Panzerkorps took Ostrov on the 4th, defeated a Soviet counter-attack on the 5th, destroying 140 tanks in the process, then proceeded to capture Pskov on the 8th. Meanwhile, Manstein's LVI. Panzerkorps took Opochka. Due to supply problems and the difficult marshy terrain encountered beyond the river, the German advance from the Ostrov bridgehead slowed down, and Panzergruppe 4 was forced to divert Reinhardt's XXXXI. Panzerkorps north-eastward, closer to the Baltic coast, to open up a new line of advance. On July 14, having bypassed whatever Russian concentrations stood in their way, Reinhardt's panzer spearheads reached the Luga river, the last main obstacle before Leningrad and only 60 miles from the city.

The famous statue, better known as the Bronze Horseman, still stands on its huge 1,600-tonne pedestal rock.

The river, which flows north-westward from Lake Ilmen to the Gulf of Finland, was also Leningrad's outermost defence line. Hastily constructed by 300,000 people, mainly civilians, in a two-week period, the Luga Line consisted mainly of an anti-tank ditch, which stretched for 100 miles, reinforced here and there with pillboxes, trenches and dragon's teeth anti-tank structures. The commander of the line was Major-General K. P. Pyadyshev. All he had to man his defences were six rifle divisions and a mountain brigade, all of low fighting value, plus straggler and broken units from the earlier fighting. Any hope of holding the Luga Line lay with the Opolcheni, the volunteer militia units, three of which arrived from Leningrad to bolster up the defence. The 1st Division of Volunteers had taken over an 18-mile front from Unomer to Kositskoye on July 10; the 2nd Division arrived on July 14 and occupied positions at Ivanoskoye; the 3rd Division went into the line on the 15th.

The haste and carelessness with which the volunteer units had been organised resulted in a deadly toll once they were put into action. Many of the volunteers never even reached the fighting lines as fatigue, illness, age and exhaustion soon took their toll. One commander reported losing 200 out of his 1,000 men during a route march to the front. While unable to stop the enemy advance, the Opolcheni volunteers did however succeed, often at a terrible cost, in buying time for the city. Frequently they were thrown into battles when the front had already broken. By sheer weight of numbers and courage rather than by any military skills they held up the Germans, but their losses were enormous

The covered statue with anti-tank obstacles obstructing the Neva embankment road and Decembrists Square. The long façade in the background is the Admiralty building. (Novosti)

with some 100,000 casualties being incurred before the front was stabilised and the defence duties were taken over by regular formations.

His forces worn out by the bloody fighting of the previous weeks, von Leeb was forced to give up his idea of a single concentrated lightning panzer strike to Leningrad. He now planned a double envelopment of the city by his two panzer corps, with Reinhardt's XXXXI. Panzerkorps on the left being supported on the flank by 18. Armee and Manstein's LVI. Panzerkorps on the right receiving similar assistance from 16. Armee.

When the German attack on the Luga Line came on August 8, the Russian soldiers fought bravely and tenaciously, but their lack of armour and artillery put them at an irrevocable disadvantage. By August 11, the line had been breached in the Kingisepp sector on the German left flank. A surprise counter-attack by the Soviet 38th Army against the right flank of the 16. Armee gave only temporary respite, for LVI. Panzerkorps, making a quick turn-round, soon staved it off.

By August 12, the Germans were behind the Luga Line and advancing with great speed. The Soviet forces withdrew in great confusion. On August 13, Manstein's LVI. Panzerkorps captured the old city of Novgorod, thus severing the main Moscow to Leningrad highway.

On August 21, the Leningrad administration issued a proclamation as follows: 'Comrade Leningraders! Dear Friends, Our dearly beloved city is in imminent danger of attack, the Red Army is striving valiantly to defend the approaches to our city, but the enemy has not yet been crushed, his resources are not yet exhausted, he wants to destroy our homes, to drench our streets and squares with the blood of innocent victims, to outrage our peaceful population, to enslave the free sons of our Motherland. Never shall this be. The enemy is at the gates. Let us rise like one man in defence of our city, our homes, our families, honour and freedom.'

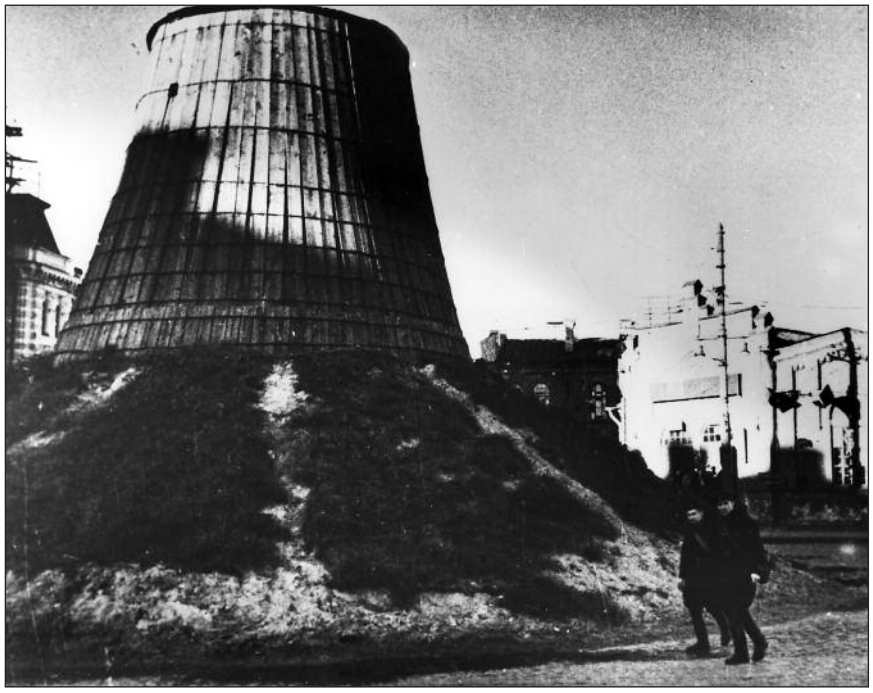
THE BALTIC FLEET WITHDRAWS TO LENINGRAD

While Hoepner's Panzergruppe 4 was sweeping northwards towards Leningrad, von Küchler's 18. Armee was steadily advancing along the Baltic coast towards the Gulf of Finland. German control of the Denmark Straits had effectively turned the Baltic Sea into of a large German-controlled lake preventing Russian shipping from any access to the world's oceans (and preventing the Western Allies from sending any supply convoys to aid Russia). However, the Soviet Baltic Fleet still had considerable numbers of surface vessels and submarines in the Baltic, either at sea or in ports like Riga in Latvia and Tallinn in Estonia. As the German 18. Armee advanced into the Baltic countries, these were successively withdrawn northwards. To restrict their free movement in the Gulf, the German and Finnish navies began a considerable mine-laying exercise.

On June 23, 1941, a German mine seriously damaged the cruiser *Maxim Gorki* during its journey back to Leningrad. Under tow, the cruiser managed to continue into Kronstadt naval base where she was repaired enough to allow her to later take a vital part in the defence of Leningrad. Stationed near the grain terminal in the commercial port, her 180mm guns were a welcome addition to the firepower of the defenders.

The Soviet Navy and merchant fleet suffered gruesome losses when they evacuated the port of Tallinn. German forces first surrounded the city on August 8, and launched their final attack on it late on the 19th. However, no less than 170 naval and merchant ships with some 23,000 refugees and troops aboard were successful in leaving the harbour at the last hour on August 28. The first convoy to sail was led by the cruiser *Kirov* and included 15 destroyers, four torpedo boats, six submarines, 28 minesweepers and 26 merchant ships. The second convoy consisted of minesweepers, guard ships, submarine chasers and 62 merchant ships. Attacked by German aircraft and torpedo boats, shelled by artillery from the nearby shore, hit by the closely set minefields, the convoys suffered terrible losses. Of a total of 67 non-Navy ships, 34 were lost. Of the 29 large transports, 25 were sunk, three were beached on Hogland Island and only one reached Leningrad. More than 10,000 lives were lost. Of over 100 Navy warships, 16 were sunk. Less than two-thirds of the vessels survived to reach Kronstadt.

It was snow and mud rather than steel that hindered traffic in Vladimir's comparison.



Often captioned as being the Bronze Horseman, this boarded-in statue is in fact that of Lenin which stands in front of the Finland Railway Station (off the picture to the right). Finland Station was where the revolutionary returned from 17 years in exile on April 3, 1917, to be received by a huge crowd of cheering Bolsheviks, and where he again arrived in October of that year to begin the Bolshevik coup. (Novosti)

When a new station was built in the 1950s the Lenin statue was moved south, closer to the Neva. The building in the right background of the wartime picture has not survived.

LENINGRAD IS ISOLATED

Meanwhile the advance by Panzergruppe 4 continued. On August 25, Reinhardt's XXXXI. Panzerkorps on the left reached Krasnogvardeisk, only 30 miles from Leningrad. Instead of having it press on towards the city, von Leeb ordered the corps southwards to link up with Manstein's LVI. Panzerkorps near Novgorod in order to encircle and destroy sizable Soviet forces that were still on the Luga or withdrawing from it. The junction between the two corps, achieved on August 31, bagged 20,000 prisoners.

Meanwhile, Heeresgruppe Nord had been reinforced by the arrival of the XXXIX. Panzerkorps, detached from Panzergruppe 3 of Heeresgruppe Mitte to accelerate the drive on Leningrad. Commanded by General Rudolf Schmidt, it comprised the 12. Panzer-Division and 18. and 20. Infanterie-Divisions (both motorised). Committed on the left wing of Busch's 16. Armee, its task was to move on Leningrad from the south-east.

The battle to encircle Leningrad was now entering its final stage. On August 25, the two motorised divisions of Schmidt's XXXIX. Panzerkorps captured Chudovo, on the main Moscow to Leningrad railway line. Then, on August 29, the same two divisions took the town of Mga, an important railway centre 25 miles south-east of Leningrad. The loss of Mga was a serious blow to Leningrad because through it passed the Leningrad to Tikhvin railway line, the last remaining rail connection between the city and the Russian hinterland. All that remained now to bring supplies into the city was the narrow land corridor, just seven miles wide, between Mga and the southern shores of Lake Ladoga.

On September 6, Führer Directive No. 35 ordered Heeresgruppe Nord to transfer Panzergruppe 4 to Heeresgruppe Mitte in order to accelerate the latter's drive on Moscow. The order was to go into effect on September 15, so von Leeb knew he would soon lose most of his armour. Nevertheless, he launched his drive into the Russian lines hoping to put a tight ring around Leningrad before the departure of the panzers. By now, faced with ever more tenacious Russian defence, the German advance had slowed down to a crawl.

East of Leningrad, the XXXIX. Panzerkorps attacked to close the narrow land corridor remaining between Mga and Lake Ladoga. On September 8, its 20. Infanterie-Division (mot.) scored a major success when, after a fierce battle, it captured the town of Schlüsselburg (Shlissel'burg), on the south-west corner of Lake Ladoga, 22 miles east of Leningrad, thus cutting the city's last overland communication links with the rest of Russia. Leningrad was now completely isolated. The only way left to bring in any supplies was through the air or across the waters of Lake Ladoga.

South-west of Leningrad the XXXXI. Panzerkorps and XXXVIII. Armeekorps attacked northwards to reach the coast of the Gulf of Finland. On September 10, the 1. and 6. Panzer-Division occupied Krasnoye Selo, just seven-and-a-half miles south-west of Leningrad. On the 11th, the 1. Panzer-Division secured a foothold on the Duderhof heights, which gave the Germans a commanding view across the whole city.

On September 16, the 1. Panzer-Division and 58. and 254. Infanterie-Divisions slashed through the Russian lines and reached the coast of the Gulf of Finland near Strelna, and in so doing cut off the Soviet 8th Army from the other armies defending the Leningrad perimeter. Thus the Oranienbaum enclave came into being. Some ten miles deep and 20 miles wide, it stretched from the Gulf of Finland in the west to Peterhof in the east. Strongly encircled by German forces, this outpost would hold out valiantly against all odds throughout the entire blockade. Maintained across the ice from Kronstadt in winter and directly across the Gulf of Finland in warmer weather, it would form a constant thorn in the side of the besiegers. Attacking forays would be constantly made from it.

On September 18, the 1. Panzer-Division, in a final effort, broke through to reach Pulkovo crossroads and Aleksandrovka, the terminus of the Leningrad south-west tram line, just seven miles from the heart of the city. The Soviets, employing tanks straight from the Kolpino tank factory assembly line, tenaciously held on to the Pulkovo Heights and the German advance ground to a halt on its southern slopes.

As the fighting subsided in mid-September, four Soviet armies ended up trapped inside the Leningrad perimeter: the 23rd, 42nd and 55th Armies and the Neva Operational Group, totalling some 20 divisions. Also bottled up in the waters around Kronstadt was the Baltic Fleet. Despite its losses, the fleet at the beginning of the siege could still muster two battleships, two cruisers, 13 destroyers, 12 gunboats, 42 submarines, six coastal defence ships, nine armed cutters, 68 trawlers and minelayers, 38 torpedo boats and 134 miscellaneous craft. In addition, by August 20, the Red Navy had put into action 170 shore batteries, including 48 railway guns, and formed six batteries around 13 large guns removed from the naval artillery proving ground. The combined firepower of the Navy warships and shore batteries represented considerable artillery assets which could and did provide devastating fire to assist the Soviet ground forces in their initial defence of the city and in the later break-out battles of 1943 and 1944.

The biggest guns were the 406mm stationary cannons with a range of 28 miles firing shells weighing approximately 2,440 pounds (1,108 kilograms). The 356mm guns were railway-mounted and fired shells weighing 1,649 pounds (748 kilos) to a range of 19 miles. The 305mm guns of the battleship *Marat* fired shells of 1,038 pounds (471 kilos) to a distance of 18 miles. However, the amount of ammunition available for these big guns was limited and most firing during the blockade was done by the 102 to 130mm guns, which had ranges of from 15 to 23 miles.

The naval batteries were integrated into the city's defence system that divided the force into three groups. The first was known as the Neva Group and consisted of the smaller craft such as gunboats, the smaller destroyers and minesweepers. These were positioned in the Neva river east of the city, from Smolny to the Izhorsk region. The second detachment was known as the Leningrad Group and consisted of the cruiser

A column of troops marches past the protected statue of Tsar Nicholas I on Isaakievskaya Ploschad (St Isaac's Square). This picture was taken from a first-floor window of the Astoria Hotel, in the north-east corner of the square. (Novosti)

Petropavlovsk positioned at the coal wharfs, the cruiser *Maxim Gorki* stationed at the grain elevator, and some smaller warships positioned around the commercial docks. The third and most powerful group was positioned in the Kronstadt/Oranienbaum anchorage area and included the battleships *Marat* and *October Revolution*, the cruiser *Kirov* and several minelayers and patrol boats. During September 1941 this group alone laid down 358 barrages delivering 9,368 shells.

In the early stages of the blockade, Kronstadt and the ships of the fleet were very poorly protected from air attacks and Kronstadt's position grew even more difficult when German land batteries were brought into position to shell the fortress and shipping. The German gunners soon found the range of the ships in the seaway and on September 16, the first 150mm shells hit dreadnought *Marat* and the cruiser *Petropavlovsk*. On September 18, the German batteries concentrated on the *Petropavlovsk* with some fire being directed at the *Maxim Gorki*. The *Petropavlovsk* was hit a total of eight times and eventually settled on the bottom. During a Luftwaffe attack on the ships on September 21, the battleship *October Revolution* was hit. A fire broke out, but control and power were maintained and the ship was quickly taken in tow by a tug and moved into Kronstadt dockyard for repair.

On September 23, the Luftwaffe attacked the *Marat* when it was anchored in shallow waters just outside Kronstadt harbour. One bomb hit the foredeck, setting off an enormous explosion which caused the complete forward section of the ship to break off and the forward 'A' gun turret, with its three 305mm guns, to completely disappear under water. Hundreds of sailors were thrown into the water by the explosions and some 200 men, including the captain, Captain Ivanov, were killed and wounded. The main body of the ship settled down on an even keel. However, within a few days, and with the ingenuity and resourcefulness of the Russian crew, the three remaining gun turrets, each with three 305m guns, were again fully operational.

Many of the naval ships' guns were demounted and put into service as land batteries. Guns from the cruiser *Aurora* (which had fired blanks on the Winter Palace in November of 1917 to frighten the Kerensky Government ministers into surrendering to Lenin's Bolsheviks) were placed on the Pulkovo Heights south of the city. Armament factories in Leningrad engaged in round-the-clock work to manufacture and assemble mountings for Navy gun barrels.

The catastrophic events of early September led to a change of command on the Soviet side. Marshal Kliment E. Voroshilov, who had taken over from Popov as the commander of the Leningrad Front on July 13, had not dared to report the loss of Mga and Schlüsselburg to Stalin. When the dictator did find out, he relieved Voroshilov from his command on September 11, calling on Marshal Georgi K. Zhukov to replace him. (Just two months earlier, Stalin had dismissed Zhukov as Chief of the General Staff but the latter had regained new credit when, appointed to command the Central Front, he had successfully delayed the advance of Heeregruppe Mitte at Yelnya.) Zhukov flew in to Leningrad on the 13th and immediately began reorganising the front, relieving weak commanders and issuing stern orders.

It appeared that he had worked a miracle when the situation stabilised and the enemy pressure subsided. This was however not so much Zhukov's achievement, but more a direct result of Hitler's orders to von Leeb to surround the city but not to enter it, and to transfer Panzergruppe 4 from the Leningrad front south to Moscow.

Zhukov was in command of the Leningrad Front for just four weeks. On October 7, faced with the imminent attack on Moscow, Stalin ordered him back to the capital and gave him command of the forces there. Lieutenant-General M. S. Khozin eventually took over as commander of the Leningrad Front.

Unable to get access to the hotel room, Vladimir took his comparison from ground level on Bolshaya Morskaya.

THE FINNS CLOSE THE RING FROM THE NORTH

At the same time as German forces were sealing off Leningrad from the south, the city was also being isolated from the north. This came about as a result of the Soviet Union's own aggressive policy of pre-war years. In October 1939 Russia had made a request to Finland for a realignment of the Russian-Finnish border in Karelia, the territory immediately to the north of Leningrad, and in the north, as well as a lease on the strategically important island port of Hangoe at the head of the Gulf of Finland. Russia had no reason to fear Finland, a relatively small country, but the developing political situation in Europe had created a new awareness to the possibility of an invasion taking place through Finland, and Russia considered that it needed the additional territories as a buffer for its defence. Negotiations between the two governments soon broke down and on November 30, 1939, Soviet forces attacked Finland, starting what became known as the Winter War. Heavy ground attacks were launched against the Mannerheim Line, the Finnish defence line across the Karelian Isthmus north of Leningrad, with other attacks being launched north of Lake Ladoga, in central Finland, and in the far north.

Many believed that the Finnish forces, vastly outnumbered, would be rapidly defeated but this was not the case. The Finnish Army was inadequately equipped, but they were well trained in winter warfare and strongly motivated to defend their home country. Their ski troops were masters at the art of rapid attack and withdrawal. The Red Army troops, surprisingly unprepared for winter fighting and unfamiliar with the type of terrain encountered, suffered a series of costly defeats. Reassessing their strategy, the Soviets abandoned their effort to drive directly through the snowbound wildernesses and subsequent attacks on the Mannerheim Line were of a direct frontal nature with a massive superiority in artillery, aircraft and men. After two months of strenuous effort, a breakthrough was achieved. On March 11, 1940, Russian troops occupied Viipuri (now Vyborg) and the next day the Finnish Government surrendered. The peace treaty signed on March 12 gave the Soviet Union all the border modifications and the naval bases they had originally asked for.

Fifteen months later, the German invasion of Russia in June 1941 gave Finland the opportunity to restore the old situation. Now an ally of Germany, they attacked on July 31, starting what became known as the 'Continuation War'. Advancing rapidly against the Soviet 23rd Army down both sides of Lake Ladoga, by September 7 the Finnish forces had regained all their old border positions. Strong defence positions were then established among the forests and lakes along the Mannerheim Line, right across the Karelian Isthmus, effectively sealing off Leningrad from the north. On the eastern side of Lake Ladoga, the Finns had reached the line of the Svir river, just a short distance across the old frontier. However, despite repeated German requests, the Finns were reluctant to continue further into Russian territory to effect a link-up with the German forces approaching from the south. The Finnish leader, Field Marshal Carl Gustav von Mannerheim, had a clear political reason for this: the Finns had no desire to pursue occupation of a neighbouring country that they would no doubt have to live alongside of in the future.

When the Germans captured Schlüsselburg on September 8, 1941, they ignored the small fortress island of Oreshek, which lies only 500 metres across the water at the entrance to the Neva river from Lake Ladoga. However, unknown to the Germans, and apparently also to the withdrawing Russian main forces, a group of 12 Russian sailors from the Ladoga Fleet were still deep within the subterranean chambers busy packing supplies oblivious to what was happening outside. However, the sailors soon became aware of their perilous position when they saw German troops digging in on the Schlüsselburg waterfront and building what appeared to be pontoons suitable for a river crossing. Frantically searching through the cellars for some weapons to defend themselves with, the sailors found two old cannon, both without sights, and these were quickly positioned pointing towards the attackers and fired. However, the Germans did not react immediately. Either they must have assumed that the fortress was heavily defended or they may have decided that, as this outpost was now cut off from all overland communication, they could just sit back and wait for the effects of the siege to take hold. When the Leningrad Front command realised that the fortress was still occupied by their own troops, reinforcements consisting of one officer and 13 sailors from the Ladoga Fleet were ferried across, together with seven 45mm cannon and six machine guns. Sniper posts were constructed in the walls and the increased rate of fire made the Germans fully aware that the island was occupied and presented a threat to them. Their response was to deliver heavy direct artillery fire at the ten-foot-thick outer walls, and over the following months many thousands of tons of high explosive rained down on the defenders. By November 7, the defenders were still in position and felt confident enough to raise the Red Flag over the fortress. It promptly drew fire but, although it was shot down six times during the course of the siege, it was still flying 14 months later when the Red Army began its effort to relieve the encirclement in January 1943. The Germans carried out several forays against the fortress, but it was held by the Soviets throughout the siege, forming a lynchpin in the defence of the Ladoga Lake supply route.

Today the fortress is being restored but part of the ruins have been preserved as a memorial to its heroic defenders. (R. Hogg)

German bombing raids on the city started on September 6, 1941 and remained a continuous threat throughout the siege. That month alone, the Luftwaffe carried out 11 daylight attacks and 12 night-time raids, with an estimated 480 aircraft out of of the total force of 2,712 bombers penetrating the city defences. Boris Kudoyarov photographed the momentary panic on Nevsky Prospect as civilians, and a troop of soldiers on horseback, rush to find shelter during an air raid alarm. (Novosti)

Nevsky Prospect is St Petersburg's most important and grandiose avenue, the city's equivalent of the Champs Elysées in Paris or Berlin's Unter den Linden. Three miles long, it runs in a straight line from the Admiralty building on the Neva south-west to the Alexander Nevsky Monastery beyond the Fontanka river. The picture was taken at the intersection with Malaya Sadovaya Street. The trees on the right mark Ploschad Ostrovskovo (Ostrovsky Square), but known to the locals as 'Katya's Garden' after the statue of Catherine the Great that stands in the park.

BEGINNING OF THE SIEGE

By August, Hitler had changed his plans towards Leningrad. He had decided not to capture the city but to lay siege to it. His new orders told von Leeb not to enter the city but to go around it and link up with the Finns. Thus cut off from all supplies, the city was to be bombed and shelled into submission during the winter months. The population and military garrison were to be starved and frozen to death. It would save the Germans the heavy losses involved in a frontal attack on the city and spare them the trouble of having to feed three million extra mouths. Von Leeb was to refuse any Soviet offer to surrender the city.

With the departure of Panzergruppe 4 in mid-September, it remained for the 18. Armee to carry out this assignment. German offensive action moved eastwards, to the Volkhov and Tikhvin area, where Schmidt's XXXIX. Armeekorps fought to achieve the desired link-up with the Finns on the Svir. Meanwhile the 18. Armee's infantry divisions laid an iron ring around Leningrad, with the XXVI. and L. Armeekorps containing the Oranienbaum bridgehead and holding the line south of the city, and the XXVIII. Armeekorps occupying the vital Schlüsselburg salient. Both sides began digging in, building an ever-more elaborate system of trenches, dug-outs, bunkers, permanent artillery positions. Static warfare set in, reminiscent of the trench warfare of the First World War. For the next two and a half years, ground fighting in much of this sector would be limited to patrolling and small-scale actions.

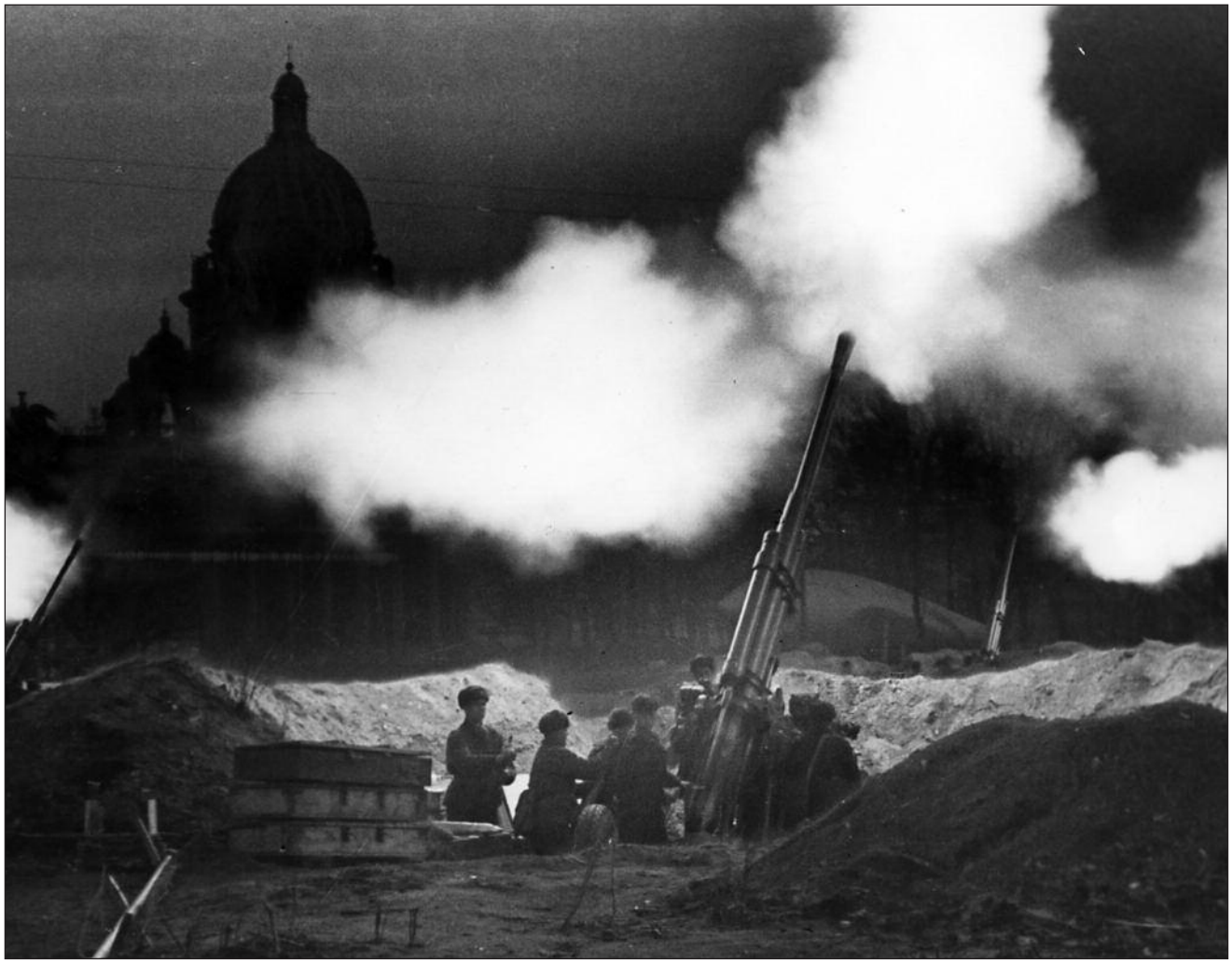
Leningrad at the start of the siege had an estimated civilian population of 2,544,000, including 400,000 children. Another 343,000 people (including refugees from other cities) were estimated as living outside of the city but within the blockade perimeter. In addition there were the military forces defending the city (including the naval forces in Kronstadt and the troops entrapped in the Oranienbaum enclave), estimated to number approximately 500,000. The total number of persons within the blockade requiring feeding was thus close to 3,400,000.

The city was totally unprepared for a winter siege. On July 1, rationing had been introduced in all big cities of the Soviet Union but since then there had been no change in allowance. The rations were close to normal consumption. Workers still received 800 grams of bread a day and 2,200 grams of meat per month, together with an ample allowance of wheat, sugar and fat. Dependents and children received 400 grams of bread. Rationing was not very strict either, there were many exceptions. Commercial restaurants, for example, were still allowed to sell food outside the system.

It was only at the end of August that the city authorities first began to worry about the diminishing food supplies in the city. Taking stock of reserves on hand, they discovered that on the basis of the current allowance, they were only enough to last one month. On August 29 — the day the Germans took Mga, severing the last rail connection with the rest of Russia — the Leningrad authorities sent an urgent telegram to Moscow asking for emergency food shipments to be sent by train to the eastern shore of Lake Ladoga, which they hoped could then be transported by boat across the lake and up the Neva river to the city. In line with these arrangements, on September 2 the city rations were cut. The daily bread allowance was reduced to 600 grams for workers, 400 grams for office workers, and 300 grams for dependents and children under 12. Meat and cereals were cut to three pounds a month, fats to a pound a half, and sweets to five pounds.

On September 4, the first German artillery shell fell on the city. It was the start of a long campaign of regular shelling which would harass the city population for many months to come and would cost thousands of lives. In September alone there would be 200 shellings. By the end of 1941 alone, a total of 30,154 shells would have landed in the city.

On September 6 occurred the first German air raid on the city, the first of 23 that month. Two days later, on September 8, the Ju 88 bombers returned in force. Disaster struck for Leningrad when their bombs hit the Badayev district in the south of the city, where much of the city's food reserves was stored in central



Anti-aircraft guns in action against German aircraft, photographed by Boris Kudoyarov. These guns are dug in on Ploschad Dekabristov (Decembrists Square), just south of the equestrian statue of Peter the Great. St Isaac's Cathedral looms against the evening sky in the background. During the Luftwaffe's intensive bombing campaign of September 1941 the city's anti-aircraft guns, together with the aircraft of the VII Fighter Aviation Corps, claimed to have shot down 272 enemy aircraft. (Novosti)

A perfect comparison by Vladimir Skvortsov, taken looking south-east across Ploschad Dekabristov.

warehouses. The flames spread from one wooden warehouse to another, soon engulfing the whole area in an inferno of fire which attracted even more bombers to it. All of the city's fire-brigade units, 168 in all, were sent to Badayev to fight the conflagration but to no avail. The results were disastrous. An estimated 3,000 tons of flour were lost. All of the city's sugar reserves, 2500 tons in all, melted and streamed down in the warehouse cellars where it hardened into a kind of black candy substance.

September 8 was the same day on which the Germans cut the city's last overland supply line by capturing Schlüsselburg. That same fateful day, September 8, Dmitri V. Pavlov, a young, able and energetic executive of the Defence Commissariat's Main Administration of Food Supplies, arrived in Leningrad from Moscow vested with power to handle all food questions in Leningrad, both for the civilians and the military. In two days, he made a thorough inventory of what food reserves were still on hand in the city after the Badayev disaster. Based on the current ration allowances, the totals were: grain, flour and hardtack for 35 days; cereals and macaroni for 30 days; meat and meat products including live cattle for 33 days; fat for 45 days; sugar and confectionary for 60 days.

Pavlov took immediate measures. Realising the danger of central supply depots, he ordered the flour and grain supplies divided over various distribution points around the city. He stopped the sale of all food without ration coupons, closed down commercial restaurants, forbade any slaughter of cattle without permission. On September 10, the bread allowance for industrial workers was decreased again, from 600 to 500 grams per day.

Anti-aircraft position on the Strelka, the spit of Vasilyevsky Island that lies just north of the city centre across the Neva river. Anti-aircraft defence of the city was the responsibility of the II Air Defence Corps which, at the beginning of the war, comprised the 115th, 169th, 189th, 192nd, 194th and 351st Anti-Aircraft Artillery Regiments and numbered 950 AA guns, 230 machine guns, 300 searchlights, 360 barrage balloons, 302 forward early-warning observation posts and eight radio-location sites. Later the city's anti-aircraft capability was reinforced by the anti-aircraft units of the 23rd, 42nd and 55th Armies trapped within the blockade perimeter, aided by the guns of the Baltic Fleet. (Novosti)

The same view today. On the left stands one of the famous twin Rostral Columns, former 19th-century light houses copied from the Imperial Roman custom of erecting columns decorated with the sawn-off prows, or rostrae, of captured Carthaginian galleys. The 19th-century warehouse building on the right is today the Zoological Museum. Hidden behind the Rostral Column lies Dvortsovy Most (Palace Bridge). The dome of St Isaac's Cathedral can be seen across the river.

Heavy anti-aircraft guns dug in on Marsovo Pole (Field of Mars), Leningrad's largest square. In an effort to improve command efficiency, in November 1941 the II Air Defence Corps was converted into the Leningrad Corps Air Defence Region, directly subordinate to the Leningrad Front commander. Anti-aircraft regiments established well-coordinated fire zones on the outskirts and in the city itself, concentrating mainly along the western and south-western approaches to the city. The growing strength and flexibility of Leningrad's AA defences caused the German air bombardment to decrease sharply between January and March 1942, dwindling to individual aircraft in April and ceasing altogether from May to October. (Novosti)

Looking for means to increase the resources available, Pavlov realised that there were still crops in the fields, gardens and abandoned farms around the city. Harvesting of potatoes and vegetables was given a high priority and, although the suburban regions were often under German fire, a total of 2,352 tons were collected by September 20, and a further 7,300 tons were brought in before the ground froze.

Wanting to clean up the ration-card system, on October 10 Pavlov decreed that all cards needed to be re-registered between October 12-18. He enlisted a force of 3,000 Party workers to carry out a thorough check on all cards in the city. As expected they found many irregularities: forged cards, cards printed without official permission, people holding more than one card, or cards that were not rightfully his or hers. All offenders were severely punished. The clean-up took some 280,000 irregular cards out of circulation.

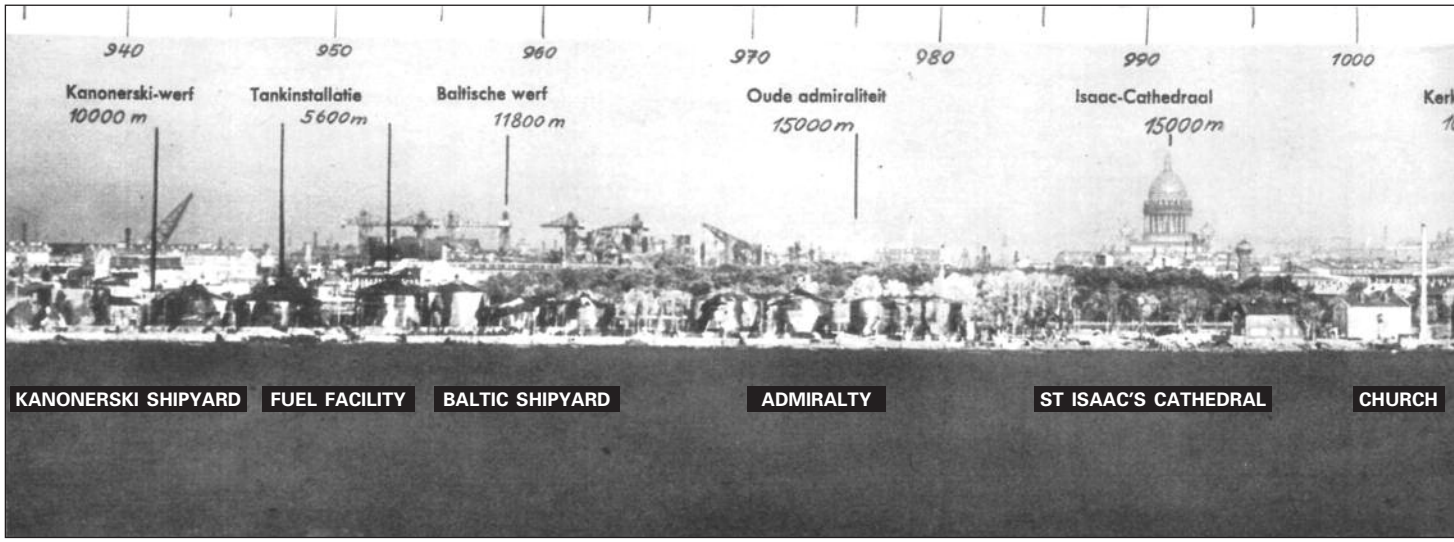
Looking north across the Field of Mars today. The buildings in the background are (L-R) the North-West Polytechnic University (formerly the service wing of the Marble Palace); the Troitskiy Most (Trinity Bridge) across the Neva river; the Academy of Culture (the former Saltykov Palace); and the Betskov House.

But with the ever-diminishing stocks, rations continued to sink. As of October 1, soldiers at the front received 800 grams of bread per day, plus hot soup and stew (or to put it in ingredients: 150 grams of meat, 80 grams of fish, 140 grams of cereal, 500 grams of potatoes and vegetable, 50 grams of fat and 35 of sugar); industrial workers received half as much bread — 400 grams per day — and only 1,500 grams of meat per month; all other adults and children received only 200 grams of bread (two slices) per day and just 400 grams of meat per month, and about half the fat, cereals and sugar that the workers got.

On November 9, the military rations were cut. Front-line troops now received 600 grams of bread and 125 of meat; rear echelons got 400 grams of bread and 50 of meat. On November 13, civilian rations were further reduced too, this time to 300 grams of bread (three slices) per day for factory workers and 150 grams for everyone else.

On November 20, daily rations reached what would be their all-time low: 500 grams of bread for front-line troops, 300 for rear units, 250 for factory workers and a mere 125 grams for all the others. To make matters worse, the quality of the bread was by now steadily getting poorer due to the use of ingredients to replace flour — 'edible' cellulose, pine and fir bark, sawdust.

Above: **Worse than the bombing was the shelling, which began on September 4. German artillery pounded Leningrad 272 times during the last four months of 1941, firing 5,364 rounds in September, 7,590 in October, 11,230 in November, and 5,970 in December. On some days shells would fall uninterrupted for more than 18 hours. Here, as smoke from a shell explosion lingers between the buildings, three women run for cover at Anichkov Most, the bridge that crosses the Fontanka river on Nevsky Prospect. Note the boy across the street watching the scene, seemingly oblivious to the danger. (Novosti)** *Below:* **To save them from harm, the famous bronze horse sculptures decorating the four corners of the bridge were removed from their pedestals and buried in the grounds of the nearby Anichkov Palace. Today, the sculptures are back in place.**

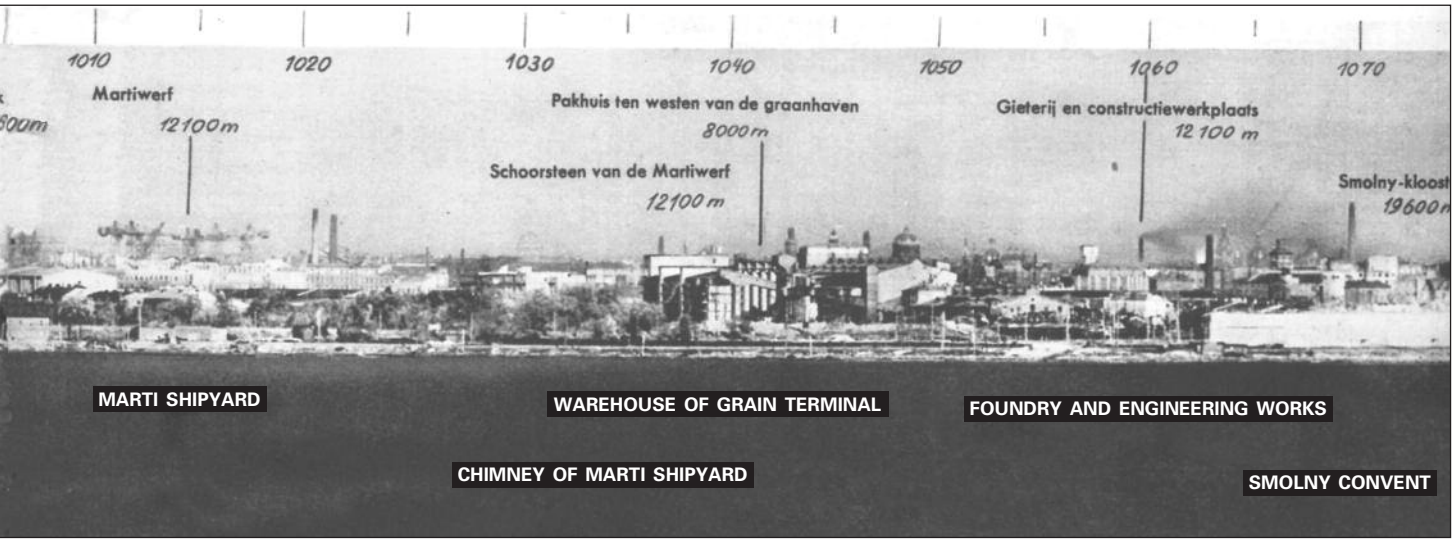


Just how close the Germans were to the city is illustrated by this panorama of Leningrad's skyline shot with a telephoto lens from the Pulkovo Heights for artillery registration purposes. Important landmarks and military targets are indicated together with their range. This picture appeared in the Dutch-language edition of the German propaganda magazine *Signal* of May 1942.

Left: **Boris Kudoyarov pictured a shell exploding on Nevsky Prospect. One of the best-known photographs to come out of the Leningrad blockade, this is in fact a montage of two different shots. The corpses on the right, although certainly real, are clearly out of scale with the civilians seen on the pavement on the left. (Novosti)** *Right:* **Whatever its later additions, the original photo was taken on Nevsky Prospect at the crossroads with Liteiny Prospect. The view is westward.**

A Red Army soldier stops to look at five victims of an artillery barrage lying on the corner of Nevsky and Ligovsky Prospects. (Novosti)

This picture was taken just two blocks further to the west from where the previous one was taken. Today the spot is just a quiet corner on Nevsky Prospect.



The German 18. Armee had concentrated its siege artillery in two main groups, one north of Krasnoye Selo and the other north of Mga. The former group comprised over 250 guns and included the heavy 28cm K5 railway guns of Eisenbahn-Artillerie-Abteilung 679 and from August 1942 the super-heavy siege mortars *Dora* (80cm) and *Karl* (60cm).

Left: **Death stalks the streets of Leningrad. These victims of German shelling lie on Ligovsky Prospect. Having fired over 30,000 shells into the city in the last four months of 1941, the guns threw in another 21,000 shells in 1942. A further 15,000 shells struck the city in the first half of 1943, but thereafter the artillery bombardment lessened, some 5,500 shells coming down in the second half of that year. (Novosti)** *Right:* **Ligovsky Prospect today, looking south.**

Left: **Troops performing the horrible job of removing victims after an artillery raid on Ploschad Vosstania (Insurrection Square). Between September 1941 and the end of 1943, a total of 5,723 civilians were killed and another 20,507 wounded by enemy shelling and bombing.** *Right:* **Few of today's passers-by will be aware of the bloody scenes witnessed by this corner of Leningrad 62 years ago. The building in the background is Moscow Railway Station.**

The 'starvation winter' of 1941-42. Thickly dressed against the freezing cold, citizens queue up for water at a broken main on Nevsky Prospect. The long building on the left is Gostiny Dvor, Leningrad's largest shopping bazaar. A few weeks earlier, on September 19, 1941, a bomb had struck the building killing 98 and wounding another 148. (Novosti)

THE WINTER OF 1941-42

Winter cold struck the city population earlier than hunger. By the end of September, all coal and fuel reserves for domestic use had been spent. To get replacement fuel, the city authorities organised firewood to be cut from the forests north of the city. Woodcutting teams of women and teenagers worked in freezing cold felling trees. Despite their heroic efforts, fuel remained scarce. By mid-October power production had fallen to one-third of its pre-war level.

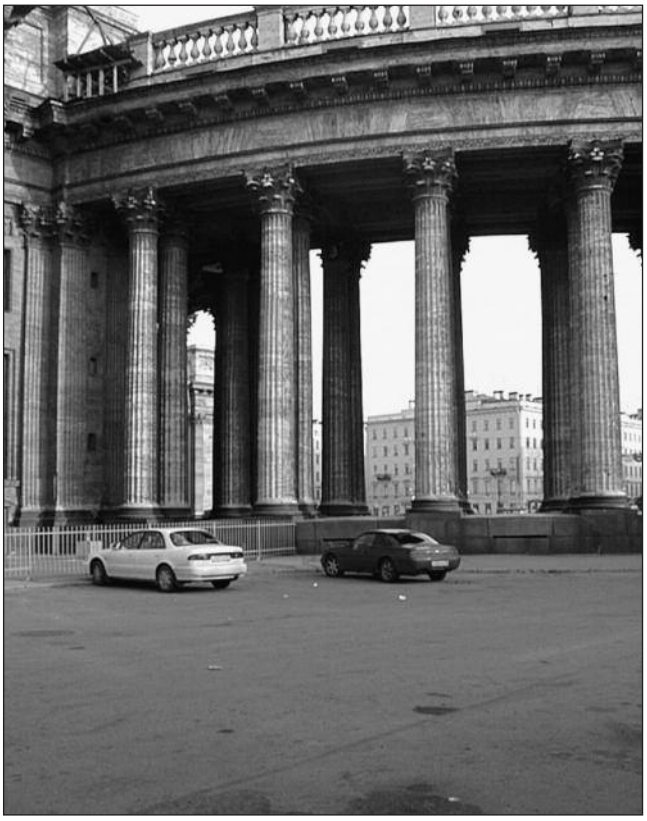
By December, central heating in offices, flats and factories was switched off, and people were forced to live and work dressed in thick overcoats and wearing fur hats. Houses ruined by shelling or bombardment were scavenged for anything that could burn. Small makeshift stoves — the *burzhuiki* — were constructed in workshops to provide some basic element of warmth for cooking and comfort and they were kept going using books, letters, furniture and just anything that would burn. They also caused hundreds of fires.

By mid-December, all but one of the city's power works had closed down for lack of coal. With water-pumping stations out of action and temperatures reaching minus 40°C, water mains froze. The water supply was shut down. Laundries and public baths ceased to operate. People were forced to get water from the Neva, hacking a hole in the ice and hauling up the muddy water with buckets.

The first cases of death from starvation occurred in October. At first, there were just a few cases every day but the number increased rapidly. The city hospitals quickly filled up with victims of the famine. Soon there were whole wards full of emaciated and dying people, treated by an overworked staff who themselves were tottering on their legs from hunger and weakness. Official figures recorded 11,000 deaths in November, and 53,000 in December. On Christmas Day alone, 3,700 people died — the highest number of deaths on a single day.

On December 9, public transport in the city ceased due to lack of fuel. Many people, forced to walk to their jobs or duties, just did not have sufficient strength to complete their journeys and collapsed on the streets. Passers-by were not always inclined to assist those who fell, as they themselves were too weak to do anything positive. Snow soon drifted over the bodies of those who had fallen and their whereabouts would often not be known until the spring thaw. People who died in their homes had often to lie where they fell until sufficient friends and relatives could be collected to make a joint effort to move the bodies. Frequently notification of the death to the authorities was delayed so that the survivors might benefit from the deceased's ration card for a while. With no wood available for coffins, mass graves were opened in cemeteries and on bombed sites using military explosives.

Looking west down Nevsky Prospect today. The ornamental tower in the far background, known as the Ferrari Tower, marks the building of the former city Duma, the seat of the pre-revolutionary municipal government.



Left: **With no coal or electricity, wood became the only source of fuel, but even this was terribly scarce. Kudoyarov photographed a firewood collecting point behind Kazan Cathedral, the grand church on the south side of Nevsky Prospect. (Novosti)**
Above: **During the Communist era, Kazan Cathedral housed the infamous Museum of Atheism. Renamed the Museum of Religion during perestroika, it was moved out in 1999, and Kazan is now back in use as a place of worship.**

The continual bombing and shelling caused considerable damage to the city's water and sewage systems and, as repairs were almost impossible to make, some streets had vast areas of sewage and refuse in them. This made them ideal breeding grounds for disease and infection, a situation worsened by the accumulation of dead bodies in the streets and the many open burial pits. Fortunately the sub-zero temperatures, together with the actions taken by the authorities, prevented the occurrence of any serious epidemics during the blockade. One typhus outbreak was reported in a children's hospital in February 1942 but prompt isolation contained the disease.

For a while, rats, driven from the granaries and warehouses by lack of food, infested the open streets but most of them were soon caught and eaten as were any cats, dogs and birds that could be found. The need of food overtook any qualms or squeamishness. Horses and ponies, already desperately thin due to lack of fodder, that fell in the streets were cut up on the spot for food. People cooked leather belts and briefcases to extract a substance called 'pork jelly'.

Scavenging parties scoured the city leaving no place unexamined in the search for food. Flour sacks were beaten and the flour dust saved. Floor sweepings from a tannery were also saved and mixed with sawdust to make a type of cake. A huge find of cellulose intended as ship's boiler fuel, but now unused, was processed to add to bread which was found to be edible although its nutritional value was negligible. Eight thousand tons of malt were also found in an abandoned brewery and put to good use.

With typical Russian resourcefulness, even a part of the foodstuffs lost in the disastrous fire of the Badayev warehouses was recovered. Some 700 of the 2,500 tons of the blackened, dirty and scorched sugar were reclaimed and processed to make a type of 'candy'. It tasted like rubber and had to be chewed like gum, but it did have some nutritional value. A quantity of the flour lost in the fire was also recovered and used.

The city's scientific community made every effort to find substitute foods from the materials available. Every avenue was examined. Books were stripped of their covers and the glue used in the bindings was melted down as an ingredient in soup; hair oil was used as fat; the intestines of rats and cats were rendered down and used to make a glutinous paste that was eaten spread on bread, when it was available. Wallpaper was removed from apartment walls and boiled to extract the flour paste glue commonly used at that time. A find of 2,000 tons of sheep gut in a warehouse, destined for musical instrument strings, was rapidly tuned into sausages by the addition of flax seeds and machine oil.

The effects of starvation are clearly visible in the features of this man holding his daily bread ration.

A scientific team headed by V. I. Sharkov of the Wood Products Institute succeeded in making tons of paste from the stewed branches of young trees mixed with peat and salt. This concoction was used to feed horses at the front. The oats that were normally given to the horses was mixed with malt and cocoa and used to make a form of bread for issue to the city population. Sharkov's team also worked out a formula for edible cellulose made from pine sawdust. It was added to the bread and nearly 16,000 tons were consumed during the blockade. Many of the alternative foods gave no, or very little nourishment, but at least gave those who ate them a brief satisfaction.

Many of the inhabitants suffered from scurvy due to the prolonged restricted diet. A scientist, Professor A. D. Bezzubov, discovered a process to extract vitamin C from pine needles. Komsomol youths collected 40 truckloads of pine needles from the forests to the north of the city, and over 16 million dozes of the medicine were produced in 1942 and distributed throughout the city.

As always under conditions of siege and famine, there were egoists and profiteers: people engaging in hoarding and black-market activities; persons stealing other people's ration card or robbing them of food, fuel or clothes; bakers fiddling with the prescribed measurements or ingredients of bread. Whenever discovered, such behaviour was ruthlessly punished by the authorities.

Left: **This picture, which perhaps more than any other has come to symbolise the ordeal of the people of Leningrad, was taken by Mikhail Trakhman. Two heavily-clad women dragging a shrouded corpse down Nevsky Prospect on their way to the mortuary. However, few people will know that Trakhman took several shots of the same scene** *(above right and below)*. **Books on the Leningrad siege usually publish only one of them and, because the successive images differ so very little, most people will have assumed they were looking at the same picture. Trakhman, a special correspondent/photographer for the Soviet news agency TASS who spent some time in the besieged city, must have been so struck by the dramatic impact of the scene that he wanted to make sure he achieved a good image. Although intruding into what was essentially a private family tragedy, he probably felt less inhibited because he was photographing the scene from the rear. (Novosti)**

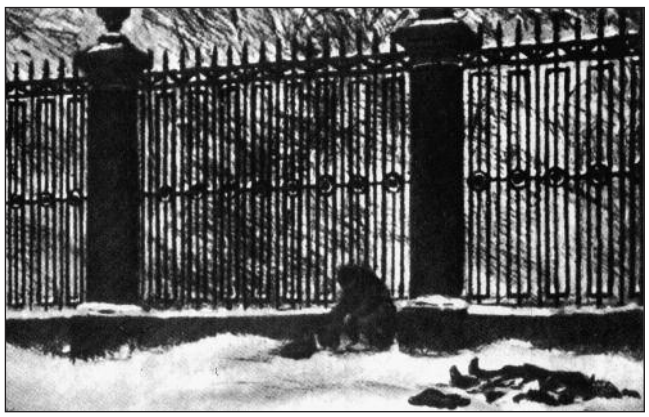
Nevsky Prospect looking east. Just visible on the right is a corner of the Leningrad Public Library, today the Russian National Library.

Yet scenes like that pictured by Trakhman were everyday sights in besieged Leningrad. At a time when death was more common than a slice of bread, passers-by pay little attention as a woman pulls a dead body — perhaps a close relative — on a sled across Lieutenant Shmidt Bridge. This bridge across the Neva connects the city centre with Vasilyevsky Island to the north. (It honours Lieutenant Piotr Schmidt who led a mutiny aboard the cruiser *Ochakov* during the 1905 revolution.)

The pain of hunger drove some of the inhabitants to the extreme of human behaviour: cannibalism. Records document some 1,500 individual cases of cannibalism during the blockade. Mostly it was a case of persons cutting flesh or organs from people who had already died from starvation, but there were also instances of individuals actually being murdered for the foodstuff their corpses could provide. In a surprisingly large number of cases, the perpetrators were women — mothers driven to near-insanity in a final attempt to get food for their starving children.

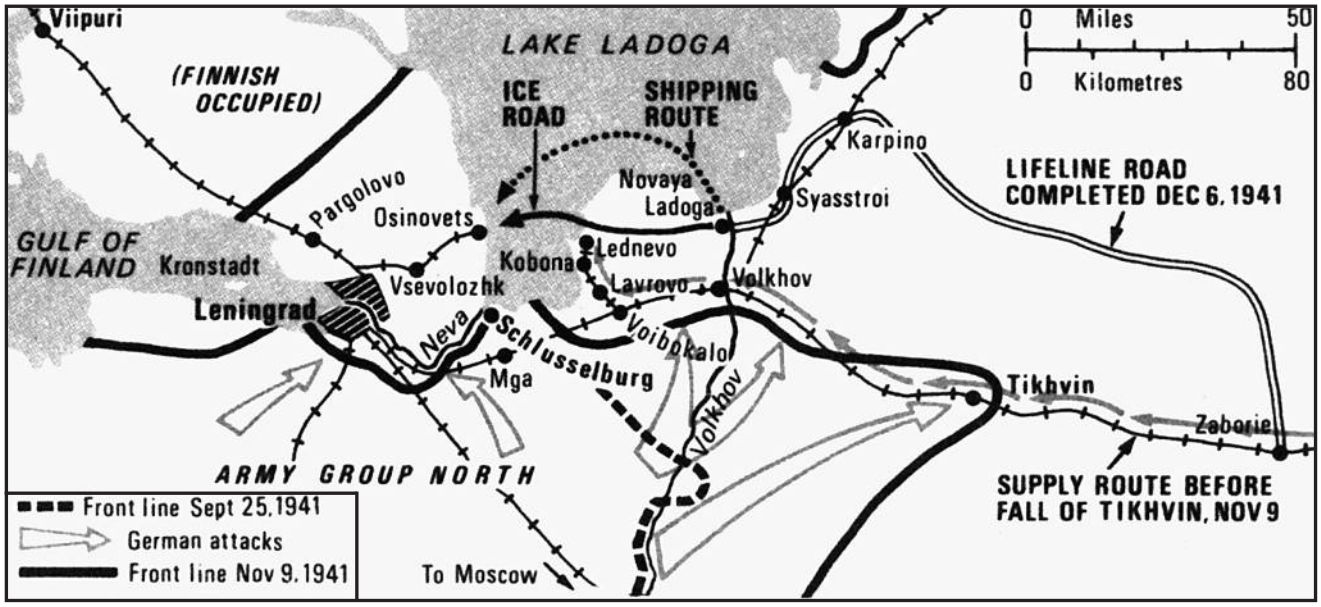
The struggle for survival changed people's outlook on life but their indomitable spirit carried them along. Despite the exhausting conditions, the citizens tried desperately to maintain a somewhat normal way of life. Some university colleges continued to provide lectures and even took examinations during the siege. Theatres and concert halls opened occasionally and actors and musicians gave performances as best as they could, with both them and their audiences bundled up against the cold.

Looking west from the bridge today, the tall dome in the background is that of the Kiev Cave Monastery (Kievopecherskaya Lavra) Mission.



Two frozen corpses beside the Summer Gardens. One has succumbed in a sitting position. (Novosti)

The northern fence of the Summer Gardens along the Neva river, photographed by Vladimir in the summer of 2003.



The ice road across Lake Ladoga — the 'Road of Life' — saved Leningrad from total starvation in the first winter of the siege.

THE 'ROAD OF LIFE' ACROSS LAKE LADOGA

With the city sealed from the north by the Finns, from the south by the Germans and with the Gulf of Finland closed by enemy mines, the only access to the beleaguered city was across Lake Ladoga or by air. Some supplies were flown in by air-lift, but the quantities remained small. The Leningrad planners knew that the only way to get enough supplies into the city was by a route of some sort across Lake Ladoga.

Some 125 miles long and 80 miles wide, the lake reaches depths of up to 700 feet. Weather conditions vary considerably during the year. During summer time ferocious storms can suddenly appear, while in winter low temperatures prevail and the waters can freeze to a considerable depth. The most difficult time for any movement across the lake is in the spring and autumn periods when the ice is unstable.

As long as the lake did not freeze up, supplies could reach Leningrad by ship. Provisions could be brought up from the east by rail as far as Volkhov, 25 miles south of Lake Ladoga. Transferred onto transport vessels, the stores could then be sailed up the Volkhov river to the lake-side town of Novaya Ladoga and from there to Osinovets on the Leningrad side of the lake, from where a narrow-gauge railway line would carry them the last 35 miles to the city. Until early September ships had been able to sail right into the city via the Neva river, but this route became impossible when the Germans captured Schlüsselburg, which lies at the start of the river. From Schlüsselburg, German artillery was also able to harass rail traffic on the Osinovets line.

Preparations were quickly put in hand to arrange a shipping route across the lake. A special Lake Ladoga shipping flotilla was formed. A formidable force of 20,000 workers was assembled and set to work constructing docks and warehouses at Kobona, Lavroro, Novaya Ladoga and Voibokalo on the southern shores of the lake and at Osinovets and Kokkorevo on the Leningrad side. The range of materials available severely limited the sophistication of the installations that were constructed but the Russian capability for improvisation quickly came to the fore and enough facilities were provided to make dispatch and reception of supplies feasible.

The first two ships arrived at Osinovets on September 12, bringing in 800 tons of grain — less than was needed for just one day. Nevertheless, the news of the ships' arrival was received with great enthusiasm in Leningrad. Three large vessels, each carrying 1,000 tons of wheat, arrived on the 15th. While one was being unloaded, the other two were attacked by Stuka dive-bombers and sunk with all the foodstuff aboard. (The ships were later explored by divers and, although in most cases the grain aboard had rotten, a few hundred tons of wheat were salvaged and declared usable.)

After that, ships would only sail after dark, and be escorted by Navy gunboats. Still, many did not survive the passage, 24 boats being sunk in the next four weeks. The shipping route lasted for a month before the onset of winter made further delivery by boat impossible. By then, some 45,000 tons of stores had been brought in, a considerable quantity but not nearly enough to meet the needs.

On November 8, the 12. Panzer-Division of Schmidt's XXXIX. Panzerkorps occupied the town of Tikhvin, some 100 miles east of Mga. The loss of Tikhvin was a major blow to the supply route organisers as the town lay on the railway line which handled the flow of supplies to Volkhov, the railhead for the shipping route across Lake Ladoga. The severing of the rail line made immediate rerouting necessary. Anticipating the fall of Tikhvin, the Leningrad authorities had already made plans for the construction of an entirely new road right through the swamps, bogs and dense timber forests north of the German salient to a point of embarkation on the lake still occupied by Russian forces. Moscow initially objected to the plans, which they thought would take up too much resources, but after the fall of Tikhvin quickly approved. The proposed road would be 220 miles in length. It would start at Zaborye, 60 miles east of Tikhvin, and run first north to Lakhta, then west to Karpino, from where it would descend on Syasstroi on the south-east corner of Lake Ladoga, and from there onwards to Novaya Ladoga and Voibokalo. The road would be required to carry a minimum of 2,000 tons of supplies every day. Leningrad food officials estimated that, unless the road could be completed within

Right: **As soon as ice conditions allowed, a scouting party was sent out to reconnoitre a suitable passage across the frozen lake. The route was staked out and opened for transport on November 20 but, with the ice still not thick enough to safely support trucks, the first convoy across was comprised of horse-drawn cargo sledges.**

Left: **By November 22, the ice was one foot thick, strong enough to support motor transport. However, there were still many weak spots and at least 40 trucks went to the bottom in the first week alone. In order not to crack the ice, trucks had to maintain a speed not much faster than walking pace and keep a safe distance between vehicles, although both these limitations decreased as the ice grew thicker. In due course an elaborate network of guides, traffic-control posts (one every 200 or 300 yards), repair depots, feeding points, communications, rescue and first-aid stations and road-defence positions was created along the various routes. In all, some 19,000 people were employed in the ice-road operation, working in average temperatures of 20 to 40 below zero.** *Right:* **A female traffic officer stands guard at the gate-like structure that was erected to indicate the beginning of the 'Road of Life'. In an effort to increase deliveries, truck drivers from January 1942 attempted to speed up their journeys, 261 of them achieving two round trips per day that month. During March, 355 of them completed three trips and 100 even managed to do five.**

two weeks, death by starvation would soon overtake everybody within the blockade.

The road would be built from west to east. An army of peasants and rear-area troops — men, women and children — was assembled and put to work, in freezing cold and deep snow, equipped with little more than picks, shovels and handsaws. They had a few army lorries and tractors for hauling timber but no bulldozers or snowploughs. Two tanks were available and these were used to pull down trees and to provide the materials needed to cross the swampy areas. Work continued night and day, the work site lit up by campfires that provided a little warmth for the labourers during breaks. What they built was not an all-weather tarmac road on a solid base with drainage but basically a cleared path through the forest with fascines laid down across streams and swamps, and timber bridges constructed where necessary. For most of its length it was just wide enough for one vehicle.

Meanwhile, knowing that the waters of Lake Ladoga would inevitably freeze up, preparations also continued for the establishment of a supply route across the ice. Ice would normally begin to form sometime around mid-November, but in some years substantial ice did not form until late January. Initially it was not known if it was feasible for a road to be built across the ice and carry the weight of truck traffic. Experts determined that a thickness of seven inches (18cm) of ice was needed to support a horse and sledge with a one-ton load; eight inches (20cm) to carry a truck with a one-ton load; and one foot (30cm) to carry a whole convoy. One day of minus 15°C would create four inches of ice, eight days were needed to make a foot. Once formed, the ice could rapidly build up to a thickness of three to five feet which would carry any load and would last until the end of the winter.

Ice first began to form on the lake on November 8. Every day, tests were carried out to measure its growing thickness.

An hour before dawn on November 17 — nine days after the fall of Tikhvin — two reconnaissance teams ventured out on the thin ice. One, led by A. N. Stafeyev, tested the ice in the vicinity of Osinovets and Kokkorevo, the two ports on the Leningrad side. The other, headed by Lieutenant Leonid Sokolov and with 30 men from the 88th Construction Battalion, set out across the Bay of Schlüsselburg, the narrowest part of the lake, to scout out a route from Kokkorevo to the island of Zelenets and on to Kobona on the eastern shore, 22 miles away. Their orders were to find a route that would be able to carry a horse and sledge with a load of 100 kilos. Making their way through barren cold and a blazing snowstorm, roped together in order not to get separated, some of them wearing life belts, the team drove on. Every hundred yards they stopped to drill a measuring hole in the ice and leave a flagged route-marker pole in it. Forced to find detours around open spots and ice-floes, they slowly but doggedly made their way across the white expanse. Well after midnight, after some 20 hours on the ice, they reached Kobona.

Their report that a route could be opened was quickly telephoned back to Leningrad. Their superior, Major A. S. Mozhayev, immediately set out on his horse and, following the flagged route, reached Kobona in four hours. Next day, November 19, Lieutenant-General F. N. Lagunov, the man in charge of the ice road, himself drove a light scout car across the ice from Kokkorevo to Kobona — the first motorised vehicle to cross.

Though the ice was still thin and unreliable, the authorities decided to take the risk and ordered the road to be opened. On November 20, a convoy of horses with sledges and 350 drivers under Captain Mikal Murov crossed the lake to Kobona

With more routes being opened, the ice road was organised as a two-way, round-the-clock transport system. Although it increased the risk of enemy shelling or air bombardment, the often dismal weather conditions on the lake and the short hours of daylight necessitated many truck convoys to travel with blazing headlights. Boris Kudoyarov pictured one such convoy passing two lone traffic regulators on the barren icy plain. (Novosti)

Heavy snowfalls made continuous clearing of the road necessary. In all the Leningrad Front road service removed snow from 1,375 miles of road surface. In due course, the high snow embankments built up alongside the road formed a buffer against the snowstorms and gales blowing on the frozen expanse. The snow walls also served to indicate the route, enabling the number of road guides and traffic-control points to be reduced.

Periods of thaw severely limited vehicular movement in December. The onset of spring thaw heralded the final end, but everything was done to keep the lake road open as long as possible. Pools of water and cracks in the ice forced a first curtailment of traffic on March 25, 1942; bus traffic was halted on April 15; tanker trucks could no longer cross after April 19; and the order to halt all movement across the ice was issued on April 21. Yet a final convoy made it to Leningrad on April 24, the cargo comprising 65 tons of spring onions!

and returned early next morning, each sleigh carrying about 100 kilos of flour and dried food. With the city having a daily need of 3,000 tons it was only a drop in a bucket, but the important thing was that it proved that it could be done. The first motor convoy crossed on the evening of November 22, 60 lorries bringing back 33 tons of flour on the 23rd. That first week the 'Road of Life', as the Leningraders dubbed the lake road, delivered 736 tons of food to the city — a considerable quantity but not nearly enough to save the population from starvation.

As the ice thickened, more and more trails were opened across the lake. By mid-winter there were as many as 60. All between 22 and 25 miles long, they ran across the Bay of Schlüsselburg from either Lavrovo, Kobona or Lednevo on the eastern shore to either Kokkorevo, Vaganovo and Osinovets on the Leningrad side.

Meanwhile, work on the emergency road to Zaborye had progressed steadily. On December 6, the road reached the end of the forest and was pushed on to the rail terminus at Zaborye where, within minutes of its completion, the first convoy of trucks was on the move with supplies to the city. However, the poor state of the hastily-constructed road soon took its toll. Within three hours the leading vehicle got stuck, holding up the entire convoy for hours before it could be dug out. This repeated itself countless times. The trek soon turned into chaos. Trucks bogged down, slid into swamps, or were hit by German artillery. The convoy took six days to reach Lednevo. Driving at walking pace, they needed another 27 hours to cross Lake Ladoga. A total of 350 trucks were lost in this first convoy, but badly needed supplies had again reached the city.

After so much toil and endeavour, it was an ironic twist of fate that on December 9 — only three days after completion of the road and only a month after the occupation of Tikhvin had dictated its construction — Tikhvin was recaptured by the Soviet 4th Army under General Kirill A. Meretskov after a pitched battle. Realising its vital importance, Schmidt's XXXIX. Panzerkorps fiercely defended the town, losing over 7,000 troops in their attempt to hold it. The recapture of Tikhvin meant that supply trains could again reach Volkhov, the rail terminal for Novaya Ladoga, which would considerably speed up delivery to Leningrad, and make the long truck haul through the forest superfluous.

The news that Tikhvin was back in Russian hands greatly boosted morale in the beleaguered city. Coming on the 70th day of the siege, it was the first positive sign that the city could perhaps be saved and the enemy defeated. Yet it took considerable time before the rail terminals could actually be used again, as the Germans had destroyed numerous bridges, warehousing and storage facilities during their retreat. While these were being repaired, it was still necessary to use the forest road to supply the eastern lakeside depots. Using German equipment that had been captured in the fighting, the Soviets widened and strengthened the road. A quantity of German petrol captured at Tikhvin helped to keep the trucks moving.

Yet, the amount of stores delivered to Leningrad across the frozen lake remained depressingly low. The journey across the ice kept being slow and dangerous. Trucks, and their drivers, frequently disappeared through the ice or were lost in the blizzards. Maintenance of the truck fleet was a nightmare as there was a wide variety of vehicles involved and a constant lack of spare parts. Petrol was in short supply and of very poor quality. Enemy action also caused disruptions: there was almost continuous shelling, aerial bombing and even commando-type raids across the ice. Unremitting fighting in the Volkhov region caused considerable damage to the supply terminals. The single-track railway between Ladoga and Leningrad suffered from broken-down engines, lack of fuel, and starving and dying personnel.

However, despite all its shortcomings, the system continued to work. By December 23, the ice road had brought in 16,449 tons of food — an average of 361 tons a day. By now, rail traffic to Volkhov was such that the forest road could be wound down. On December 25, although there was still little more than two days' supply of flour on hand, Zhdanov decided to raise the daily bread rations for the first time since the start of the siege: workers now received 350 grams — 100 grams more than before; all the others got 200 — an increase of 75 grams. That same day, the forest road was decommissioned

The ice road memorial at Vaganovo on the Leningrad side of the lake.

Left: **In the spring of 1942, to prevent the outbreak of infectious disease, the city authorities mobilised the population for a massive clean-up operation. Between March 27 and April 15, over 300,000 people worked to remove vermin and garbage from streets, homes, buildings and waterways. The operation covered three million square metres of streets and 16,000 buildings, and resulted in the disposal of a million tons of refuse. Here, citizens clear Liteiny Prospect of snow. (Novosti)** *Right:* **The same street — pristine and sparkling — pictured by Vladimir in the summer of 2003.**

Left: **To increase the food reserves, the city authorities also instituted a campaign to grow vegetables on any suitable piece of land. These cabbages are being harvested in the park on St Isaac's Square — seen earlier on page 11. (Novosti)** *Right:* **St Isaac's Square today, with the corner of the Astoria Hotel on the left and looking into Bolshaya Morskaya Street.**

On December 31, the Soviets recaptured the little railway town of Voibokalo, 40 miles west of Volkhov and that much closer to the starting points of the ice routes across the Bay of Schlüsselburg. Next day already, New Year's Day 1942, the first supply train from Tikhvin rolled into town. An endless procession of trucks began shuttling from there back and forth across the frozen lake, sometimes as much as 400 a day. In an attempt to further increase deliveries, the truck drivers organised a competition as to who could make the fastest delivery run. In January, workers built a new railway branch from Voibokalo to Kobona, thereby shortening the journey of the trucks by another 25 miles. By the end of January, 1,500 tons of supplies were reaching Leningrad daily.

The returning trucks also began bringing citizens out of the city. Right from the beginning of the siege, people had begun to leave their beleaguered homestead. Some 33,500 persons had been lucky enough to get a place on the boats in the autumn, and another 35,000 had been flown out in November-December. Many others had tried the long and difficult walk across the frozen lake or hitch-hiked a lift on one of the returning trucks. Thousands had frozen to death on the ice, but by January 22, 1942, some 36,000 had come out via this way. That day, the city authorities decreed the evacuation of one quarter of the remaining population: 500,000 persons. Priority was given to aged people and children, but many adults were allowed to go too. Any person evacuated from the encircled city meant one mouth less to feed. In the last ten days of January the trucks brought out 11,000; in February 117,000; in March 221,000; in April 163,000. By the end of April, more than half a million people had left the city, and only 110,000 remained.

Gradually, very gradually, conditions within the city improved. On January 24, the daily bread rations were increased again: 400 grams for workers, 300 for employees, 250 for dependents and children. On February 11, they were raised again, to 500, 400 and 300 grams respectively. However, for thousands of Leningraders the improvement in the supply situation came too late. After months of slow starvation, it was impossible to nurse those that were already fading back to health, and they still succumbed to the effects of malnutrition.

People also still got killed by enemy action. During the first three months of 1942 alone over 14,800 shells fell on the city, killing 519 and wounding 1,447. Such actions continued throughout the length of the siege until the German forces withdrew from around the city.

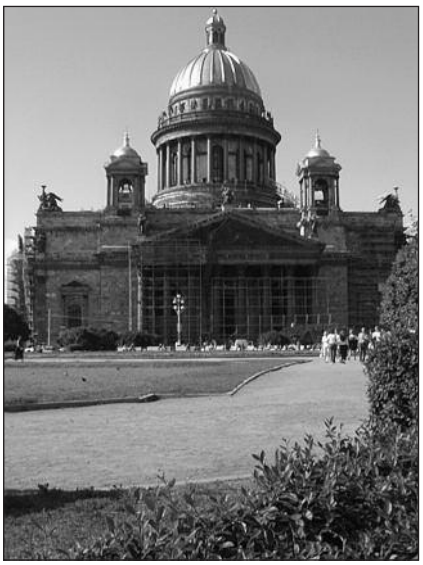
The winter of 1941-42 was by far the worst period of the 900-day siege. The cost in human lives was staggering. Exact figures are difficult to come by. The official figure announced by the Soviet Government after the war, minimised for political reasons, was that 641,803 had died from starvation and 29,832 been killed by enemy shelling, air raids and other war causes, making for a total death toll of 671,673. But these figures are evidently incomplete and present-day Russian historians estimate that of the three and a half million people present inside the city perimeter (including Kronstadt and the Oranienbaum enclave) at the start of the siege, between 1.3 and 1.5 million died.

As spring arrived, the city appeared to gain a new lease of life. Though still feeble from hunger and exhaustion, the population went out to get city life back on its feet. Zhdanov issued a decree calling on every citizen between 15 and 60 to do his bit. Streets were cleaned of snow, dirt and debris; roofs and windows repaired. Corpses uncovered by the melting snow were taken away to be buried. Water and sewage mains were repaired, power stations brought back in order. Any piece of land that could be brought into cultivation — parks, gardens, empty plots — was taken into use to grow vegetables, potatoes and other foodstuff. On April 15, the first trams re-appeared on the street.

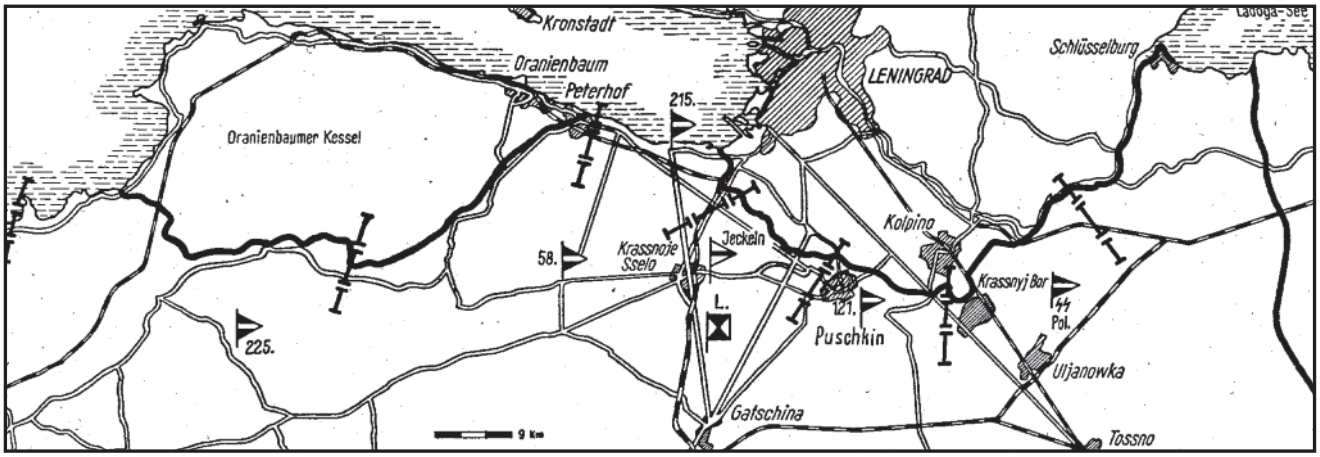
Almost as a symbol of Leningrad's indomitable spirit, on April 9 the Leningrad Philharmonic Orchestra for the first time performed Dmitri D. Shostakovich's *Seventh Symphony*, christened the *Leningrad Symphony*, before a crowded house. (The famous Leningrad composer had worked on the piece inside the besieged city until October, refusing to be evacuated until the authorities ordered him to. He had finished the symphony at Kuibyshev, where it had also premiered in March.)

With the advance of spring, the melting ice on Lake Ladoga meant the advent of another critical period in the supply situation. Feverishly, the city authorities strove to build up reserves to bridge the gap between the end of the ice road and the resumption of the supply by shipping. By the time the road was closed — on April 24 — Leningrad had built up reserves of flour for 58 days, cereals for 57 days, meat and fish for 140 days, fats for 123 days and sugar for 90 days.

As soon as the waters of Lake Ladoga were again navigable, the Russians resumed supply by shipping. The cargo ships were protected by a Navy flotilla consisting of three gunboats, the destroyer *Konstruktor*, about 20 patrol boats and some smaller craft fitted out with tank turrets. The Germans tried disrupting the supply lines, attacking the convoys with armed Siebel ferries. Assistance arrived on June 22 in the form of four Italian MAS torpedo boats, which destroyed one of the Soviet gunboats on August 15 and sank a 1,300-ton supply lighter. The Finns had a gunboat flotilla on the lake too, but in general they restricted themselves to patrolling. In all, the Russians lost about 124 ships of various types on the lake, but in general their defence of the supply routes was a success.



Left: **Another picture taken in the same park shows a Red Army officer admiring the rich harvest. In all, over 2,000 hectares of land were planted in inside the blockade area in 1942, producing 76,000 tons of vegetables. (Novosti)** *Right:* **The southern façade of St Isaac's Cathedral makes for an easy comparison.**



By early October 1941 the Germans had completed their encircling manoeuvres around Leningrad and around the Oranienbaum pocket to the west and had started consolidating their positions. From then on until January 1943 the front lines in this sector remained largely static, with both sides dug in, practically the only change being the rotation of units. This map shows the German order of battle as it was in August 1942, when the L. Armeekorps was holding the line, with the 225. and 58. Infanterie-Divisions containing the 'Oranienbaumer Kessel' (Oranienbaum Cauldron) and the 215. Infanterie-Division, Kampfgruppe Jeckeln (comprising Flemish, Norwegian and Dutch SS Volunteer Legions), the 121. Infanterie-Division and the SS-Polizei-Division occupying the encirclement line south of Leningrad.

1942: FAILED ATTEMPTS TO LIFT THE SIEGE

Aware of its symbolical value, Stalin and the Stavka were determined to lift the blockade of Leningrad. Twice in 1942, the Red Army launched a large-scale offensive in an attempt to relieve the city, but both failed miserably.

In January, as part of the Red Army's general winter offensive along the entire Eastern Front, three Soviet army groups — from north to south: Lieutenant-General M. S. Khozin's Leningrad Front, Meretskov's Volkhov Front and Colonel-General P. A. Kurochkin's North-Western Front — were to launch an ambitious attack which aimed to cut off and destroy German forces in the Mga and Liuban sectors and restore communications with Leningrad. The main effort was to be made by Meretskov's Volkhov Front. Its 2nd Shock and 59th Armies were to attack north-westwards from the Volkhov river and capture Liuban and Chudovo prior to an advance towards Leningrad. To their south, Meretskov's own 52nd Army and the 11th Army of Kurochkin's North-Western Front were to support this main effort by capturing Novgorod. Kurochkin's other three armies further south — the 34th and 3rd and 4th Shock — were to take Demiansk and cut off the German withdrawal routes. In the north, Khozin's Leningrad Front would support the main effort by having its 54th Army attack south-westwards from the Volkhov river and its 55th Army south-eastwards from the Leningrad perimeter. If the latter army linked up with the 54th Army and the Volkhov Front armies coming up from the south, the blockade would be broken.

Delayed by the weather, and with many of the assault and support units not yet in place, the Volkhov Front offensive jumped off on January 6. Committed piecemeal, the 59th Army (Major-General I. V. Galanin) and 2nd Shock Army (Lieutenant-General G. G. Sokolov) suffered heavy initial losses amid the Germans' strong forward defences and bogged down in confusion after two days. After regrouping, the attack was resumed on the 13th with the 2nd Shock Army (now led by Lieutenant-General N. K. Klykov) leading. On the 17th, Klykov finally penetrated the German defences and in heavy fighting managed to advance six miles.

Faced with the Soviet penetration south-east of Leningrad, von Leeb asked Hitler for permission to withdraw his Heeresgruppe Nord forces to a more coherent defence line. When Hitler refused, Von Leeb handed in his resignation. On January 18, Hitler replaced him with von Küchler. The latter's place as commander of the 18. Armee was taken by Generaloberst Georg Lindemann.

On January 24, Meretskov launched his mechanised exploitation force which brought the 2nd Shock Army forward another 45 miles, to a position south of Liuban. More than 100, 000 Soviet troops were now in the German rear area, threatening to cut off the German forces in the north.

However, Busch's 16 Armee in the south and Lindemann's 18. Armee in the north ably managed to contain the enemy penetration, and, although the 2nd Shock Army doggedly continued its attempts to capture Liuban, by late February the Volkhov Front offensive in this area had come to a standstill. On March 15, Küchler's 18. Armee launched a strong counter-attack and, battling through heavy resistance, managed to cut the narrow supply corridor to the 2nd Shock Army, thus trapping that army in the frozen swampy wastelands south of Liuban. The Soviets desperately fought to re-open the supply routes, but by the end of April the 2nd Shock Army was inexorably cut off. Short of ammunition, food and supplies (and led since April 20 by yet another commander, Lieutenant-General Andrei A. Vlasov), it fought on for another two months, launching several, increasingly desperate attempts to break out. In mid-June, the Volkhov Front made several attempts to liberate the encircled army but all failed. By early July, the 18. Armee had destroyed the 2nd Shock Army, capturing some 48,000 troops, including General Vlasov.

Meanwhile, the supporting offensive by the Leningrad Front in the north had failed as well. Its 54th Army (Major-General Ivan I. Fedyuninsky) attacked on January 4 (two days before the main offensive), but within two days was thrown back to its jump-off positions. Resuming the attack on the 13th, it captured Pogoste on the 17th but shortly could go no further. Once more renewing its offensive on March 4, Fedyunisky's army managed to advance to within six miles of Liuban before it was halted for good and became locked in a fruitless struggle around Smerdynia. Leningrad Front's other armies, scheduled to attack from within the Leningrad perimeter, were simply too weak to make any impression or progress at all.

The supporting offensive by the North-Western Front in the south achieved more, but also fell short of its ambitious targets. Attacking on January 7, its armies penetrated the German defences and by February 26 had encircled the II. Armeekorps in Demiansk. However, despite prolonged attempts from March 6 until April 9, they were unable to crush the encircled corps, which defended itself skilfully and was resupplied from the air. Worse still, on March 20, a German relieving force of five divisions advanced east from Staraia Russa and linked up with the trapped force the following day. The North-Western Front attacked incessantly but could not close the corridor, and the offensive in this sector ground to a halt around May 20.

After five months of intense fighting in difficult terrain and generally appalling weather conditions, the Soviet winter offensive to relieve Leningrad had failed spectacularly. Despite terrible losses — the Volkhov, Leningrad and North-Western Fronts together lost nearly 554,000 men killed, captured or missing — the siege of the city had not been lifted.

In the summer, both sides made plans for new offensives. In July Hitler sent important reinforcements to the Leningrad sector designed to complete the total envelopment of the city and secure its final reduction. These included Generalfeldmarschall von Manstein's 11. Armee, fresh from its victories in the Crimea, with four divisions, and the siege artillery batteries, named *Dora*, *Gamma* and *Karl*. The 11. Armee was charged with planning an attack to the north-east to finally effect a link-up with the Finnish forces (Operation 'Nordlicht'), the super-heavy mortars were to pummel Kronstadt to ruins.

Noticing the German build-up, Stalin and the Stavka ordered the Leningrad and Volkhov Fronts to conduct a large-scale offensive to pre-empt the expected German offensive and, if possible, lift the blockade. The sector chosen for the attack was the German Mga — Schlüsselburg salient south of Lake Ladoga. The two army groups planned a concentric attack, with the Leningrad Front (now led by Lieutenant-General Leonid A. Govorov) launching its 55th Army and the Neva Operational Group towards the east, and the Volkhov Front (still under Meretskov) its 8th Army and a reconstituted 2nd Shock Army to the west.

Better organised than its predecessor, and given more armour and artillery support, the Volkhov Front offensive started on August 27. It caught the Germans by surprise and in four days' time its 8th Army (Major-General F. N. Starikov) managed to drive forward some ten miles to Siniavino, just four miles distant from the Leningrad perimeter lines along the Neva.

Although the Soviet offensives mounted in 1942 did not bring the hoped-for raising of the siege, these counter-strokes tied down German troops and attracted large German forces away from southern Russia at a time when the Wehrmacht was waging its summer offensive in the Caucasus towards Stalingrad. The Leningrad, Volkhov and North-Western Fronts suffered staggering losses, but inflicted considerable damage on the Wehrmacht too. On July 25, 1942, Boris Kudoyarov pictured a group of German prisoners being marched along Nevsky Prospect. (Novosti)

Reacting quickly to this threat to the blockade, Küchler sent one division after another to oppose the penetration, five in all, among them four earmarked for Operation 'Nordlicht'. Heavy fighting developed around Siniavino. The Soviets managed to crawl another two miles closer to Leningrad but by September 3, their attack was faltering.

The Leningrad Front had made an initial attack across the Neva on August 19, which had made little headway. Now, with the Volkhov Front spearheads so close, Govorov launched the 55th Army (Major-General V. P. Sviridov) and the Neva Operational Group across the Neva in an attempt to link up with Meretskov. None of these attacks got very far and on the 12th the assault forces were ordered to withdraw to their starting positions.

An exasperated Hitler ordered von Manstein and his 11. Armee to restore the situation and neutralise the Soviet offensive. On September 10, Manstein's initial counter-attack, with one panzer and two infantry divisions, was stopped short by enemy artillery, mortars and minefields. A more-carefully-planned pincer attack on the 21st had more success, and by the 25th had encircled both the Soviet 8th and 2nd Shock Armies. The Leningrad Front launched relief attacks across the Neva but these were quickly thrown back by the Germans. In heavy fighting from September 30 to October 15 Manstein's army systematically reduced the Siniavino pocket, although the bulk of the two Russian armies managed to escape from it.

The Soviet offensives of 1942, although they all failed to raise the blockade, did at least prevent the Germans from completing the total envelopment of Leningrad. All German plans for a drive to finally link up with the Finns were upset by the Russian attacks. German reinforcements sent north for such an attack had to be committed and were spent staving off the Soviet offensives.

The winter of 1942-43, Leningrad's second winter under siege, was not nearly as bad as the first and caused far less casualties. Several factors combined to prevent another period of starvation. Firstly, and most tragically, because of the previous year's death toll and the continued evacuations from the city, the population was now much smaller than a year earlier. Since May another 449,000 persons had been brought out, so that by November, Leningrad needed to feed only 700,000 citizens and some 420,000 soldiers. Secondly, far greater food reserves had been amassed in the city. Thirdly, the winter of 1942-43 was far less severe than the previous one. Lake Ladoga froze up much later, enabling supply by shipping to continue until November 27, and in the northern parts of the lake, where the ice formed later, even until January 7, 1943. Fourthly, the authorities now knew much better how to organise the ice road. Opened on December 19, the road functioned, with some interruptions due to weak ice, until March 30 and in this period transported over 210,000 tons of cargo, mainly food and ammunition, and more than 200,000 personnel and evacuees. And lastly, in mid-January the Red Army finally succeeded in breaking the blockade.

By now a familiar sight with the Gostiny Dvor bazaar on the right and the Russian National Library in the far background.

Right: **On January 18, 1943, the Red Army finally broke the siege of Leningrad when it opened a land corridor into the city from the east. Railway connections were quickly restored and on February 7, the first train, its engine decorated with pictures of Stalin and Molotov and texts hailing the 'heroism of the people of Leningrad in the struggle against the German Fascists', rolled into Finland Station.**

JANUARY 1943: THE BLOCKADE IS BROKEN

In early 1943, the Soviets made new plans for an offensive that was to lift the siege. The German setbacks at Stalingrad caused Hitler to move most of the 11. Armee southwards again. This weakening of the front around Leningrad gave the Soviets the opportunity they had been waiting for. This time they concentrated their attack where the German ring around the city was at its narrowest: south of Lake Ladoga between Mga and Schlüsselburg. The German salient along the Neva river at this point was only 15 miles wide. The plan — code-named Operation 'Iskra' (Spark) — was for a concentric attack by two army groups, Govorov's Leningrad Front attacking from the blockaded city eastwards, and Meretskov's Volkhov Front attacking westwards towards it.

The simultaneous attack began on January 12. After a massive artillery preparation and supported by some 400 aircraft, the 67th Army (Lieutenant-General Mikhail P. Dukhanov) assault-crossed the Neva river and struck eastward with eight rifle divisions plus five rifle, two ski and three tank brigades. Similarly supported, the 2nd Shock Army (Lieutenant-General V. Z. Romanovsky) pushed west with 11 rifle divisions, one rifle, two ski and four tank brigades. Both armies made rapid progress, overwhelming and pushing aside the German 170. and 227. Infanterie-Divisions, and by the end of the first day had covered about one-third of the distance that separated them. The 18. Armee rushed reinforcements up from the south — combat groups of the 61. and 96. Infanterie-Divisions, 5. Gebirgsjäger-Division and the SS-Polizei-Division — in a desperate attempt to hold the salient, but the Soviet offensive was too strong. On January 18, the two armies achieved contact, the first link-up being made by the 67th Army's 123rd Rifle Division and the 2nd Shock Army's 372nd Rifle Division just east of Workers Settlement No. 1. The Soviets swiftly moved in troops to reinforce the precariously narrow opening, building up a strong shield to the south.

The blockade of Leningrad had been broken. For the first time in 16 months the city was again in overland contact with the outside world. All of Leningrad rejoiced at the news. Engineers began immediate work to restore railway connections with the city, building a new railway bridge across the Neva at Schlüsselburg. On February 7, the first freight train rolled into Finland Station, welcomed by a huge crowd of happy citizens. Finally, a steady supply of the city was secure. No longer the city needed to rely on the erratic delivery across Lake Ladoga. It was a decisive turning point in the battle.

On February 22, the city rations could be increased again, to 700 grams for industrial workers, 600 grams for other workers, 500 for employees and 400 for dependents and children. With the railway operating it not only became possible to bring in food, but also heavy machinery and materials to commence war production. During the blockade, manufacture of some tanks, mines, small arms, shells, artillery and grenades had continued while materials were still available, but this was only a small part of the city's potential. Now, full-scale manufacture could be resumed.

But although the blockade had been broken, the siege continued. Leningrad and the Oranienbaum enclave still lay within easy range of the German artillery guns, and German bombers could still penetrate the city. German troops were still dug in within sight of the city centre. All through 1943, bombs and shells would continue to rain down on the city, and add thousands of victims to the already endless list of casualties.

Russian submarines operating in the Gulf of Finland from Kronstadt had achieved some modest successes in 1942, including the sinking of SS *Argo* and 23 ships of various types. In order to contain the submarine threat the Germans and Finns decided to construct a barrier across the entrance to the Gulf to supplement the minefields. A major feat of engineering, the barrier consisted of two rows of steel netting almost 65 miles long laid directly across the gulf between Porkkala in Finland and an island west of Tallinn in Estonia. Suspended to a depth of over 200 feet, the nets had 8,454 mines positioned between them. Some 140 surface ships took part in the building project. Completed in April 1943, the barrage proved extremely successful and during 1943 not one Russian submarine managed to gain passage through the Gulf to the Baltic. At least three Russian submarines are known to have been destroyed in the barrage and several submarines were damaged after making repeated attempts to pierce it.

JANUARY 1944: END OF THE SIEGE

With the lifting of the blockade, and the easing-up of the supply situation in the city, it also became possible to build up military strength for the final offensive that would finally raise the siege of the city and throw back the Germans for good. All through 1943, trainloads of fresh troops and their weapons arrived in Leningrad. Under great secrecy, the 2nd Shock Army was brought into the Oranienbaum enclave to the west of the city, troops and supplies arriving by ship or, after the onset of winter, across the frozen ice of the Gulf.

By autumn the planning for the breakout was complete. The new offensive was to be a huge pincer movement by two army groups. Govorov's Leningrad Front would attack with two armies, the 2nd Shock Army from the Oranienbaum enclave and the 42nd Army from the Pulkovo Heights on the southern edge of Leningrad (Operation 'Neva'). Both attacks would have full support of the Baltic Fleet guns and numerous rail-mounted guns. After meeting up, the two armies would sweep southwards. Meanwhile, some 120 miles to the south-east of Leningrad, Meretskov's Volkhov Front would launch its 59th Army and Southern Operational Group in a double attack across the Volkhov river north and south of Novgorod. Once that city had been enveloped, Meretskov would sweep westwards. If all went according to plan, the converging army

Although the first train is recorded as having been pulled by Loco No. L-1208 and the picture shows it to have three steam domes, it is another locomotive, No. 3721-83 with two domes, that has been preserved as a memorial to this event at Petrokrepost Railway Station on the north shore of the Neva at Oreshek/Schlüsselburg. (R. Hogg)

Left: **On January 14, 1944, the Red Army's Leningrad Front launched a massed offensive to finally drive the Wehrmacht away from Leningrad and bring the city out of reach of the German artillery. Attacking from the Oranienbaum enclave to the west of the city, the 2nd Shock Army blasted through the German lines. One of the places they occupied was Peterhof, the great ensemble of palaces founded by Tsar Peter the Great on the southern shores of the Gulf of Finland (see the map on page 30). Having lain just east of the Oranienbaum pocket and almost in the front line for 28 months, the palaces had suffered heavily, not least from German demolitions. Here cavalry soldiers inspect the ruined shell of the Great Palace and the famous Grand Cascade below it. (Novosti)** *Right:* **Superbly rebuilt by the Russian restoration experts, the Great Palace has regained all of its former glory. Its Germanic name replaced in 1944 by the Russian equivalent Petrodovets, the palace officially reverted to its former name of Peterhof in 1992 (although the nearby town itself is still called Petrodovets). (R. Hogg)**

groups would trap and destroy the 18. Armee. The Soviets built up a decided superiority over their German adversaries: Govorov had a majority of three to one in infantry, four to one in artillery, and six to one in tanks and aircraft; Meretskov outnumbered the Germans by three to one in infantry and 11 to one in armour.

The Germans, knowing full well that an attack was only a matter of time, had constructed a formidable system of defence fortifications to a depth of nearly 200 miles. The main line, known as the 'Panther Position', lay 150 miles south-west of Leningrad and included 6,000 bunkers, 140 miles of barbed-wire obstacles, tank ditches, etc. It was considered to be impregnable.

The Soviet offensive started on January 14, 1944. Due to fog, supporting aircraft of the 13th Air Army could not take off. Nevertheless, after a preliminary bombardment by 6,000 guns, including the powerful guns of the Baltic Fleet batteries and ships, the 2nd Shock Army (Lieutenant-General I. I. Fedyuninsky) struck out from Oranienbaum across a six-mile-wide front. The 9. and 10. Luftwaffen-Feld-Divisions crumbled under the massed assault and by the evening the Soviets had penetrated two miles into the German defences.

Next day, January 15, the 42nd Army (Colonel-General I. I. Maslennikov) struck out from Leningrad. The weather had cleared, enabling Soviet aircraft to assist the artillery in battering the German defences. By evening the 42nd Army had also advanced some three miles.

The Germans were initially not very worried by the Soviet penetrations, having failed to detect the massive power and reserve built up by their opponents. However, the 18. Armee had not enough men to fill the gaps and by January 17, the 2nd Shock Army's breach was 15 miles wide and five miles deep. Late on January 18, the two Soviet armies linked up just south of Ropsha, trapping the German forces still fighting in the north. Next day the 42nd Army took Krasnoye Selo, overrunning the German artillery positions that had rained down death and destruction on Leningrad for nearly two and a half years. A total of 85 artillery pieces were captured intact, and immediately turned against the retreating enemy.

In the south, the attack by the 59th Army (Lieutenant-General I. T. Korovnikov) and the Southern Operational Group (Major-General T. A. Sviklin) had also started on January 14. The assaults across the Volkhov river and the northern end of Lake Ilmen were hindered by the thaw and the difficult terrain. Many tanks got stuck in the riverside mud, and many vehicles and horse transports broke through the melting ice. Several times, von Küchler asked Hitler for permission to pull back the troops defending Novgorod, but each time the Führer refused. By January 19, the Soviets had nearly closed the ring around the city, and the German XXXVIII. Armeekorps was desperately clinging on to a narrow corridor out to the west. At the last hour, Hitler relented to von Küchler's requests and the German troops managed to escape under cover of darkness, leaving Novgorod a desolate wasteland of blasted ruins.

The German front collapsed. All along the line, the 18. Armee was now retreating to the Panther Position. By January 27, the Germans had been pushed back so far that even their farthest-reaching artillery guns could no longer reach Leningrad. The announcement to the population over the city's public speaker system caused an outburst of jubilation on the streets. It was the final end of the siege. A total of 876 days had gone by since the first shell fell on the city on September 4, 1941. That night, 324 guns fired a salute of 20 shots each to celebrate the deliverance of the city. The 900 days of Leningrad were over.

Left: **One day after the 2nd Shock Army's attack from Oranienbaum, the 42nd Army attacked from Leningrad proper, striking southward to achieve the planned encirclement of German forces in that area. By January 23, its CX Rifle Corps had enveloped Pushkin — the former Tsarskoye Selo (Royal Village), the 'Russian Versailles' housing the Imperial Palaces of Catherine and Alexander 17 miles south of Leningrad. Having held on to the town and the two palaces for nine days but now encircled from three sides, the German 215. Infanterie-Division managed to escape southwards during the night of January 23/24. In this staged photograph, Soviet soldiers charge through one of the gates of the Catherine Palace. (Novosti)** *Right:* **During their two-and-a-half-years' occupation the Germans had thoroughly plundered the Pushkin palaces and the fighting of 1944 further ruined the buildings and the town. Decades of restoration work have now repaired the exterior but much work remains to be done. (Tsarskoye Selo was renamed Pushkin by the Communists in 1937 after the poet Alexander Pushkin.)**

March 5, 1946. Churchill arrives in Fulton, Missouri, with President Truman. Seated (L-R) are the Governor of Missouri, Phil M. Donnelly, Admiral William Leahy, Personal Chief-of-Staff to the President, and Dr Franc L. McCluer.

HOW CHURCHILL AND WREN CAME TO MISSOURI

By Cyril Demarne, OBE

It all began in December 1945 when the White House disclosed that Winston Churchill would be coming to the United States 'early next year' to deliver an address on World Affairs at the Westminster College in Fulton, Missouri, a small university town of some 12,000 inhabitants, situated midway between St Louis and Kansas City.

It was the idea of Dr Franc L. McCluer, then President of Westminster College, to invite the British wartime leader to deliver the seventh John Findley Green Foundation lecture at the college. His letter of invitation was endorsed by President Harry S. Truman who wrote: 'This is a wonderful school in my home state. Hope you can do it. I'll introduce you.'

And so it was that Winston Churchill travelled to Missouri to deliver the speech which was to have world-wide impact. He entitled it 'The Sinews of Peace' and it contained the sentence: 'From Stettin in the Baltic to Trieste in the Adriatic an iron curtain has descended across the continent', a phrase that caused it to become referred to universally as 'The Iron Curtain Speech'.

It was in 1961, 15 years after Churchill's visit, that Dr Robert Davidson, who had succeeded Dr McCluer as President of Westminster College, was reading in the London *Times* a report on the number of Sir Christopher Wren Churches standing desolate, partially destroyed in the bombing and awaiting possible demolition.

'Why not', he mused, 'bring one of these churches to Westminster College and rebuild it as a memorial to Sir Winston Churchill?'

In June of that year, Dr Davidson convened a meeting, attended by Patrick Horsbrugh, the Professor of Architecture at Nebraska University, members of the American Branch of the English Speaking Union and other interested parties, to consider the pros and cons of his plan. Patrick Horsbrugh promised to look into the possibilities when visiting London later that summer.

> *A shadow has fallen upon the scene so lately lighted by the Allied victory. Nobody knows what Soviet Russia and its Communist international organisation intends to do in the immediate future, or what are the limits, if any, to their expansive and proselytizing tendencies. I have a strong admiration and regard for the valiant Russian people and for my wartime comrade, Marshal Stalin. There is deep sympathy and good will in Britain, and I doubt not here also, towards the peoples of all the Russias, and a resolve to persevere through many differences and rebuffs in establishing lasting friendships. We understand the Russian need to be secure on her Western frontiers by the removal of all possibility of German aggression. We welcome her to her rightful place among the leading nations of the world. Above all, we welcome constant, frequent and growing contacts between the Russian people and our own people on both sides of the Atlantic. It is my duty, however, for I am sure you do not wish me to mis-state the facts to place before you certain facts about the present position in Europe — I am sure I do not wish to, but it is my duty, I feel, to present them to you.*
>
> *From Stettin in the Baltic to Trieste in the Adriatic, an iron curtain has descended across the continent. Behind that line lie all the capitals of the ancient states of Central and Eastern Europe. Warsaw, Berlin, Prague, Vienna, Budapest, Belgrade, Bucharest and Sofia, all those famous cities and the populations around them, lie in what I must call the Soviet sphere and all are subject in one form or another, not only to Soviet influence but to a very high and increasing measure of control from Moscow.*
>
> WINSTON CHURCHILL, FULTON, MISSOURI, MARCH 5, 1946

Dr McCluer, the President of Westminster College at Fulton, Missouri, had extended an invitation to Winston Churchill, then out of office following the General Election in 1945, to deliver the Green Lecture at the college but, before he sent the letter, he took it to Brigadier General Harry H. Vaughan, President Truman's military aide. The President then added a postscript in longhand: 'This is a wonderful school in my home state. Hope you can do it. I'll introduce you. Best regards Harry S. Truman'. In his introduction to his speech titled 'The Sinews of Peace', Churchill explained that 'the name "Westminster" is somewhat familiar to me. I seem to have heard of it before. Indeed, now that I come to think of it, it was at Westminster that I received a very large part of my education in politics, dialectic, rhetoric and one or two other things. So that, in fact, we have both been educated at the same or similar or at any rate, kindred establishments.'

'Some people thought we were crazy', said Dr Davidson, but the idea was gaining solid support, including that of former President Truman who wrote to Sir Winston outlining the proposal to erect a Winston Churchill Memorial in the United States. Sir Winston replied: 'I am deeply honoured by the suggestion'.

There was little opposition in the United States. As one writer put it, 'it would survive as a tribute to Wren's genius; as a visible testimony to the days when Britain and her people stood alone against the forces of tyranny and as a symbol of the heroic resistance led by Prime Minister Winston Churchill'.

My own cursory association with St Mary's began about 1915 or 1916 when my dad took me to see the Lord Mayor's Show. We strolled along Aldermanbury after the show and he pointed out the old church with its walls bearing the grime of three centuries of London smoke. It stood on the site of the church destroyed in the Great Fire of London, having been rebuilt by Sir Christopher Wren in 1677.

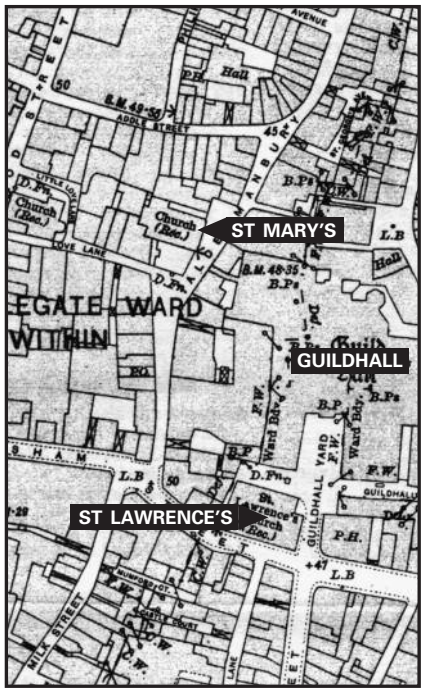
My father, who had an eye for such monuments, lost no opportunity in showing me such historic buildings but, at age 10, I was not greatly impressed.

Many years later, my duty as an officer serving in the National Fire Service in Central London in 1944, took me past the burnt-out fabric of St Mary's, one of the seven Wren Churches to be destroyed in the great City Blitz of December 29, 1940, when large areas of 'The Square Mile' were devastated by the Luftwaffe and St Paul's Cathedral, surrounded by fire, was saved from destruction by the Herculean efforts of firefighters, despite a desperate shortage of water.

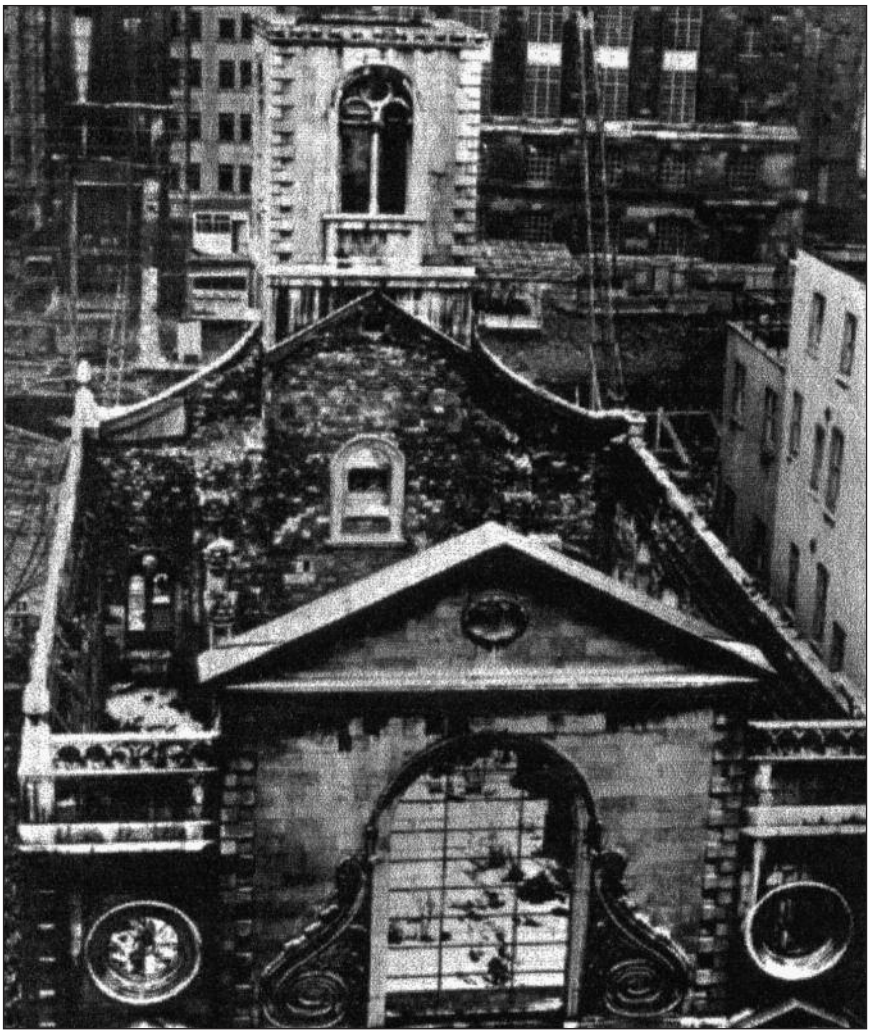
One conflagration — one of several in the City that night — involved the area stretching along the north side of Cannon Street to the south side of Cheapside, at which point it was stopped by tenacious fire crews, exposed to scorching heat punishment, spaced with their jets along the opposite pavement. St Mary's Church, together with the Church of St Lawrence Jewry nearby and the City of London Guildhall, were all well alight.

For some years after the war much of the

According to President Truman, Churchill wrote the speech on the train while travellng from Washington although in fact all he was doing was polishing what he had written earlier in England. Advance copies were released to the press, but without the significant paragraph about the 'iron curtain'. This Churchill only pencilled into his speaking draft (now held in the Churchill Memorial Library at the college) as he obviously wanted to hold back the all-important paragraph for maximum impact. After giving his speech — which was to have such significance in years to come — Churchill turned to Dr McCluer and said: 'I hope I have started some thinking here today that will make history.'



Although Churchill's lecture was commemorated by a plaque at the college, the St Louis branch of the English Speaking Union felt that more should be done to record the historic visit. In 1961 they came up with the idea of creating a unique memorial: the wholesale moving of one of London's blitzed churches to America! There were several possible candidates but the choice fell on St Mary's in Aldermanbury. Sir Christopher Wren had reconstructed it after the Great Fire of London in 1666 but it had burned out again in Goering's big fire raid of December 29/30, 1940.



Left: **The gutted shell remained standing on the corner of Love Lane for 20 years, its demolition still in the balance, when the Churchill Memorial project came into being. Sir Winston said he was greatly honoured by the proposal and in November 1962 wrote to Westminster College saying that 'the removal of a ruined Chirstopher Wren church, largely destroyed by enemy action in London in 1941 [*sic*], and its reconstruction and re-dedication at Fulton, is an imaginative concept. It may symbolise in the eyes of the English-speaking peoples the ideals of Anglo-American association on which rest, now as before, so many of our hopes for peace and the future of mankind.' Added impetus was given the following April when Churchill was made an honorary citizen of the US and the dismantling of the church finally began in 1965** *(right).*

area, including St Mary's, lay desolate while the Ecclesiastical Commissioners, the Royal Fine Arts Commission, the Ministry of Housing and others wrangled over the fate of the church. Should it be demolished, partly or wholly?

In October 1961 came an announcement from the Diocesan Fund that 'several interesting and difficult points have arisen', an allusion to the moves to secure the church for removal to the United States to become The Sir Winston Churchill Memorial.

Dr Davidson and colleagues had been examining the financial situation. It was estimated that the cost of disassembling the church in London, transporting the stones to the USA and rebuilding and furnishing the Church in Fulton would amount to $1.5 million. In the event, the final cost exceeded $2 million and it took a year to raise the necessary funds.

In London, agreement to the project was finally reached and laid before Parliament in December 1963. The task of dismantling and marking the stones was begun in July 1965 under the supervision of noted architect Marshall Sisson. This part of the operation was almost completed by the end of that year at a cost of $100,000.

Before the stones were shipped, the basement foundation in Fulton had been completed. An area of 16,500 square feet was excavated to house the museum, library and offices . The memorial is filled with Churchill memorabilia, very attractively presented. It tells the story of his life and times through his books, samples of his paintings, a set of his Garter Robes and copies of his wartime speeches.

In Fulton, Eris Lytle, the master stonemason who supervised the rebuilding of St Mary's in Fulton, told me of some of the problems he was called upon to deal with. The stones were carried as ballast by an American Shipping Line free of charge and

Left: **One of Britain's best-known architects of the period, Marshall Sisson, left, was selected as Consulting Restoration Architect. He is seen here inspecting the interior with Westminster's president, Dr Robert Davidson.** *Right:* **Once the church had been dismantled, and 700 tons of stonework shipped to Missouri, the City Corporation purchased the site for a small public park.**

Before the stonework arrived in the States a basement — or undercroft — was excavated to house a library, museum and display gallery. Rebuilding the church from the 7,000-odd pieces of stone took three years, and it was rededicated on May 7, 1969. Sir Winston never lived to see the memorial to his honour but he was represented at the service by his youngest daughter Mary, now Lady Soames.

landed in Norfolk, Virginia. Before leaving London they had been scrubbed clean and the number of each stone chiselled in. At Norfolk, they were loaded into rail trucks containing some four inches of coal dust and arrived at Fulton blacker than they had been before leaving London!

'It took weeks of scrubbing to restore them', said Eris, 'during which time we all looked like chimney sweeps.' The stones, all 7,000 of them, were laid out on a 2½-acre site and the masons began sorting out what *The Times* called 'the biggest architectural jigsaw in history'.

Eris Lytle had visited London to photograph the old building and had travelled to Dorset, to the quarry that had supplied the stone for Wren's original church, to select replacement stones for some broken ones.

Lytle remembers 'a kind of reverence' descending over the work as rebuilding proceeded. 'We were restoring a church that had been built 300 years back', he said.

The raising of the outer walls and tower were completed by March 1967 and now came the task of furnishing the interior. The fire had destroyed all of the contents of St Mary's, except some silver articles contained in the church safe, so that Marshall Sisson had to rely on drawings and pre-war photographs for his plan of the interior. An English wood carver, Arthur Ayres, produced brilliant replicas of carvings in the style of Grinling Gibbons in English Oak for the font, pulpit and balcony.

Churches in the United Kingdom made gifts to the Memorial Church. Other gifts came from the City's Livery Companies and the City Corporation. The Altar candlesticks were the gift of London's Westminster Cathedral. Other items included 17th-century communion silver, altar plate, etc, and a London firm built the Mander organ, reckoned to be the finest Baroque organ in North America.

Sadly, Sir Winston did not live to witness Sir Christopher Wren's precious little jewel, rise, phoenix-like in all its glory, to be dedicated as a memorial to his life and works. (For further reading, see *The Blitz Then and Now*, Volume 3, pages 554-559.)

Cyril Demarne, our veteran author and ex-fire chief still going strong at 98, knew St Mary's intimately before it was bombed *(left)* **as it was a building dear to his father's heart. Cyril says that 'one of the things that struck me on entering the church for the first time in America** *(right)* **was the magnificent light effect, achieved by the use of clear, hand-blown Cathedral glass in the windows, a feature of Wren's churches. The glass for St Mary's restoration was manufactured in a West Virginia factory and the splendid chandeliers, replicas of Wren's original design, were made in Cleveland, Ohio.'**

Cyril was priveleged to give a lecture in the church and also to meet Eris Lytle, senior stonemason responsible for the reconstruction. 'Eris was confined to bed when I visited him in his home in Columbia', says Cyril. 'I told him about events on the night St Mary's was bombed in London and he told me of some of the problems he had faced in the reconstruction of Wren's church in Fulton. It was a truly memorable journey for me.'

THE ADMIRALTY CITADEL

By Roger Morgan

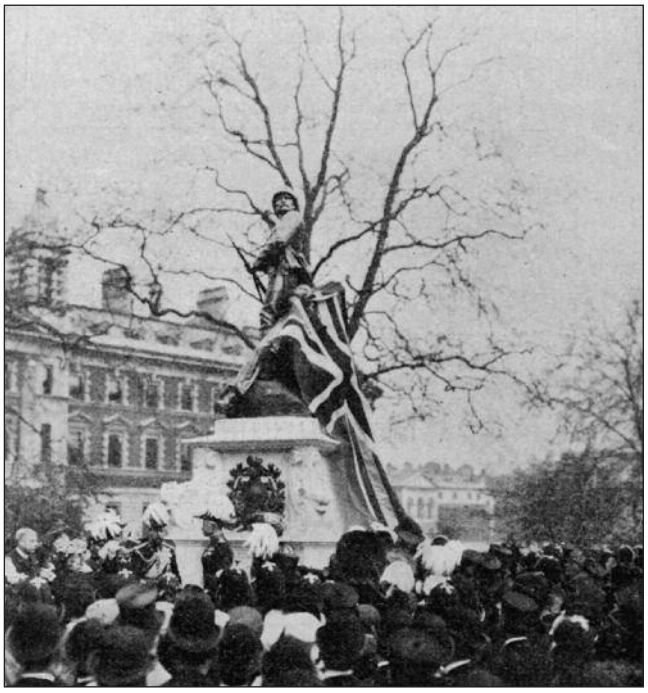
'The Admiralty on their own constructed the vast monstrosity which weighs upon Horse Guards Parade, and the demolition of whose twenty-foot-thick steel and concrete walls will be a problem for future generations when we reach a safe world.' So wrote Winston Churchill in Volume II of his history of the Second World War.

Today the vast monstrosity still weighs heavily upon Horse Guards Parade, a safer world never having quite arrived. Familiarity having bred invisibility, Virginia Creeper having cloaked raw concrete, displaced elms and war memorials having been forgotten, the Admiralty Citadel remains some 60 years after it was constructed.

Surprisingly, the Admiralty had *two* purpose-built London 'citadels', one code-named 'IP', constructed in Cricklewood in 1940 as part of the 'Black Move' decentralisation scheme, and the Whitehall Citadel built in 1942 after this scheme had been abandoned in favour of staying put in Central London. Clearly the experience of the one informed the construction of the other.

Top: **We pictured the wartime addition to the Admiralty headquarters in London some 15 years after Winston Churchill wrote about the difficulty of demolishing it, the boots, flares and maxi-coat being reminiscent of the fashions of the mid-1970s.**

Above: **Thirty years on, the Royal Navy's secret operations and communications centre still stands on the north-western corner of Horse Guards Parade ground, preservation of the Citadel now assured by English Heritage giving it listed building status.**



Left: **But first let us turn the clock back even further — to April 25, 1903. On that day HRH The Prince of Wales unveiled the Royal Marine National Memorial on Cambridge Green, a small enclosure beside the Admiralty lined with elm trees, nominally part of St James's Park. Designed by Sir Thomas Jackson and depicting a marine defending his fallen comrade, it was dedicated to the Royal Marines who died in South Africa and China in 1899-1900 (the Second Boer War and the Boxer Rebellion). (ILN)** *Right:* **Displaced by the construction of the Citadel, the memorial was re-erected on the north side of the Mall in 1948.**

No sooner had the First World War ended than the government started to worry about what might happen in the next war. From 1924 Britain had committees of officials examining air raid precaution and civil defence questions and this examination intensified after Hitler came to power in Germany in 1933 as the conviction grew, based on experience in WWI and in the 1930s, that the bomber would 'always get through'. It was assumed, naturally enough, that the main target would be central London resulting in widespread and total destruction.

The Cabinet called for contingency plans to be devised for coping with a potentially dangerous situation and among new Committee of Imperial Defence sub-committees was one on 'The Location and Accommodation of Staffs of Government Departments on the Outbreak of War'. Chaired by Sir Warren Fisher, the head of the Civil Service, the five-man sub-committee reported early in 1937 with a suggestion that an alternative centre of government should be planned in the London area where Ministers and possibly Parliament could be relocated if Whitehall were to become unusable.

After endorsement by the Cabinet in February 1937, this work was further developed in great secrecy by a new committee under Sir James Rae of the Treasury, and resulted in two alternative schemes. The first was for accommodating not only civil servants but also Ministers and Parliament in London's north-west suburbs, together with bomb-proof underground citadels for the 'fighting' Departments. If, however, this short retreat were to prove insufficient, a further withdrawal should be made to prepared accommodation in the western counties — the so-called 'Black Move'.

It is also known as the Graspan Memorial after the battle with the Boers at Graspan Kopjes on November 25, 1899.

THE ADMIRALTY CHART FACTORY

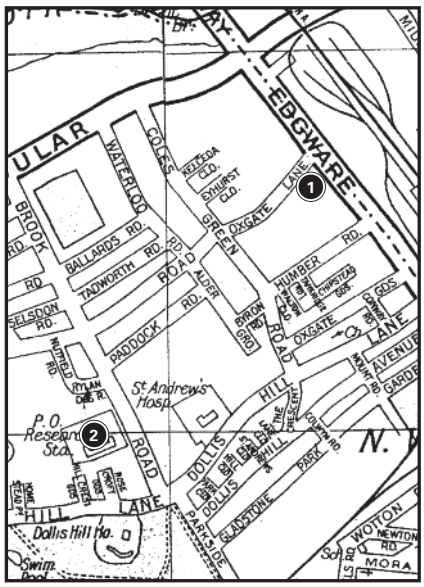
The features of the North-West London Suburbs Scheme to which the Government became committed earlier and more permanently than to the others were the three subterranean reserve war rooms for the fighting services. The War Office's citadel at Kneller Hall, Twickenham, would not be protected securely enough to be bomb-proof, but the Air Ministry was to have a bomb-proof citadel at Harrow Weald and the Admiralty another in the far north of Willesden at Cricklewood.

Since 1923, the Admiralty had a naval charts establishment in Edgware Road, about 500 yards south of Staples Corner, and in 1937 it was thought that this site (known as Admiralty Chart Factory, Cricklewood) could be surreptitiously enlarged by using the oblong acre of vacant land which lay between the factory and Oxgate Lane, fronting the Edgware Road for some 70 yards and Oxgate Lane for nearly 50 yards. The building work could be done in the guise of a telephone exchange 'without giving rise to suspicion', whilst an aerial survey by the Air Ministry showed that in this part of London it would be difficult for enemy bombers to pick out individual targets (a little surprising considering the distinctive shape of the Welsh Harp reservoir which lies just to the north!).

In May 1937 experts from the Office of Works and the Admiralty visited the site to assess its possibilities, after which an Office of Works architect produced a design for a three-storey building above ground plus an upper basement and a special lower basement (which later influenced the design of the Cabinet citadel at the Post Office Research Station nearby in Brook Road, Dollis Hill, code-named 'Paddock').

As building operations, which started in late 1937, were expected to take two years to complete, it was arranged in mid-1938 that the Post Office Research Station should be designated as the Admiralty's temporary reserve accommodation for use in an emergency, with space for the First Lord of the Admiralty, the First Sea Lord, the Permanent Secretary, the Parliamentary Secretary and the Deputy Chief of the Naval Staff, with sleeping accommodation in a nearby block of flats called Neville's Court. This was the situation at the time of the Munich crisis. The Admiralty retained a reservation on this accommodation until December 1939, when they were able to occupy the Oxgate Lane citadel with a small party of naval and civilian staff, ensuring that, if Whitehall became unusable, essential naval operations could be directed for the time being from this secure alternative base. Because this was a sort of insurance policy, the staff who went to Oxgate were known within the Admiralty as the 'Insurance Party' and the citadel acquired the code-name' IP'. At first the Insurance Party included one naval captain and seven naval commanders with a substantial staff.

Left: **The first Admiralty 'Citadel' lies beneath this former Government building on the corner of Edgware Road and Oxgate Lane in Cricklewood in north London. The superstructure of the so-called 'IP' building (known as the 'New Building' to distinguish it from the original Chart Factory further up the road) was evidently completed in 1940 because the main entrance** *(right)* **displays to this day the royal monogram 'GR VI' with a crown and the date '1940' in golden metal above a standard telephone exchange door. The underground parts of 'IP' corresponded roughly to the War Basement in the Admiralty building in Whitehall, while the above-ground floors were allocated to the Parliamentary Secretary, the parliamentary and naval members of the Admiralty Board, a substantial nucleus of the naval staff and some administrative units. The construction was designed to give protection against 500lb semi-armour piercing bombs. The ground floor comprised three feet six inches of reinforced concrete, one foot of sand, and another three feet of reinforced concrete over the sub-basement. The whole of the protected area could accommodate 250 people. No longer on the secret list, today the building is a carpet warehouse.**



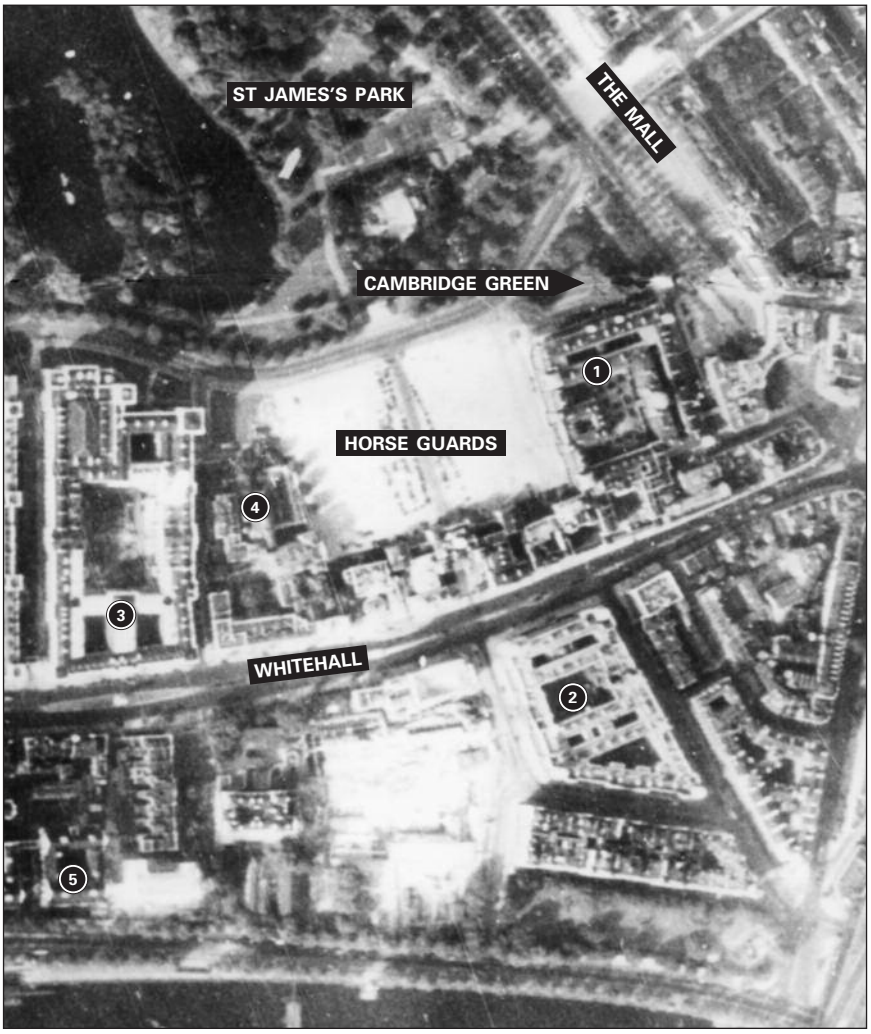
The 'IP' building as seen from Oxgate Lane [1]. Half a mile away lies 'Paddock' [2], the top-secret subterranean complex constructed for the War Cabinet within the grounds of the Post Office Research Station in Brook Road. (See ***The Blitz Then and Now,*** **Volume 2.)**

THE HORSE GUARDS CITADEL

In October 1940 Commander Simon Bateson was appointed as Defence Commander in the Admiralty. He had hardly started organising the staff into Home Guard and Air Raid Precaution units when Admiral Sir Tom Phillips, the Vice Chief of the Naval Staff, asked him to assess the protection afforded by the Admiralty 'War Basement', a hurried reinforcement of the two levels of vaults under the Old Building and its central courtyard from which the war at sea was then being run.

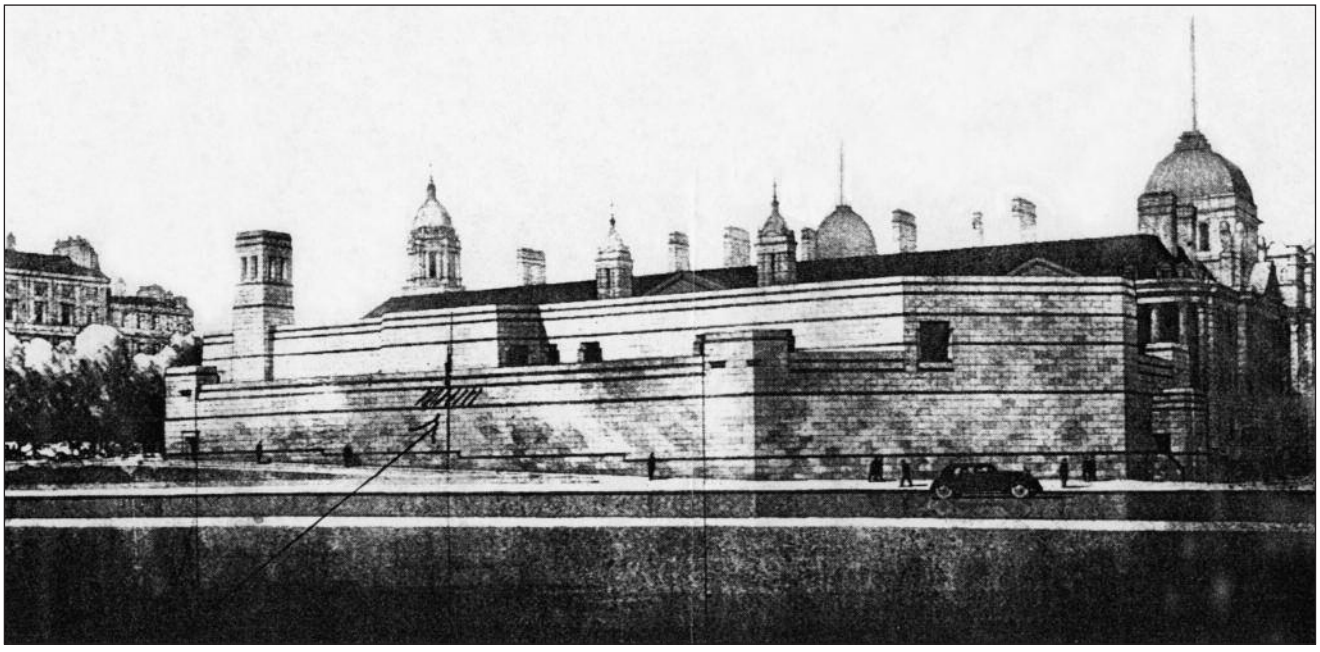
On studying a set of plans, Bateson was the first person to realise that what had been assumed to be the most protected area was in fact 'practically open to the sky' because it was under the central courtyard where it was not protected by a building above it. This was a common problem with basement shelters. It was natural to assume that the building above extended uniformly over them whereas no large building is solid – they always have light wells and often courtyards. Thus one could move without realising it from an area protected by ten stories to an area with just a one-foot-thick slab above it. The most tragic example of this phenomenon was the Café de Paris, a replica of the Titanic's ballroom in a Piccadilly basement, which was an extremely popular night-club because of its assumed safety. It was devastated with huge loss of life by a single bomb which dropped neatly down the light well above it on March 8, 1941, killing Ken 'Snakehips' Johnson, Britain's first black dance-band leader, with several members of his band and London's high society (see *The Blitz Then and Now,* Volume 2).

Mr Williams, an architect in the Royal Naval Volunteer Reserve, confirmed Commander Bateson's opinion and together they produced a report which concluded that, although the Office of Works had fulfilled their obligations to make the basement blast-proof, it was futile to try to protect it against a direct hit as the weight of the surrounding building was such that the rubble must inevitably go through any floors. The only solution would be to build a special building and the only possible place was on the triangular area of grass in front of the west facade. Admiral Phillips promptly instructed Bateson to liaise with the Comptroller and Secretary of the Admiralty and place an order for such a building at once!



Thus the Citadel was deliberately executed completely independently from the Office of Works as a solely Admiralty project, financed from their own vote, to be designed and built by their own consultants and contractor. Only when it was completed was it handed over to the Office of Works for maintenance.

The Luftwaffe photographed central London on September 27, 1940, just as plans were being formulated to provide bomb-proof facilities for the Admiralty [1]. [2] War Office. [3] Ministry of Home Security. [4] Prime Minister's residence (10 Downing Street). [5] Metropolitan Police HQ (New Scotland Yard).



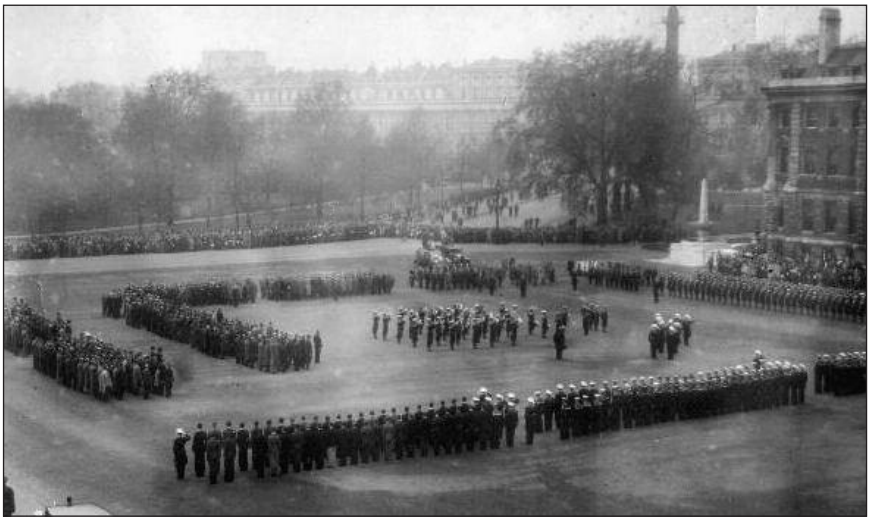
Artist's impression of the new Citadel to be built on Cambridge Green (sometimes referred to as Cambridge Enclosure).

CONSTRUCTION

The projected site of the Citadel, in front of the west facade of the Old Building, consisted of a triangular area of St James' Park formed by the intersection of The Mall and a carriage drive to the Horse Guards gate, consisting of grass set with 11 mature trees, two war memorials and a statue, on a moderate slope. To maximise space within this triangle the obvious rectangular plan had its corners sliced off to produce a curious asymmetrical polygon. Like the other war-rooms constructed after the decision in July 1939 to abandon proposals for deep-tunnelled accommodation, it was planned as a sub-surface bunker, with one operational storey below ground and one above, protected by a bomb-bursting slab with blast absorption provided by three feet of earth. When grassed over this had the extra advantage of merging the building back into the park when viewed from the air. (One of the Citadel myths is that this invisible lawn is kept trim by a resident sheep or two!)

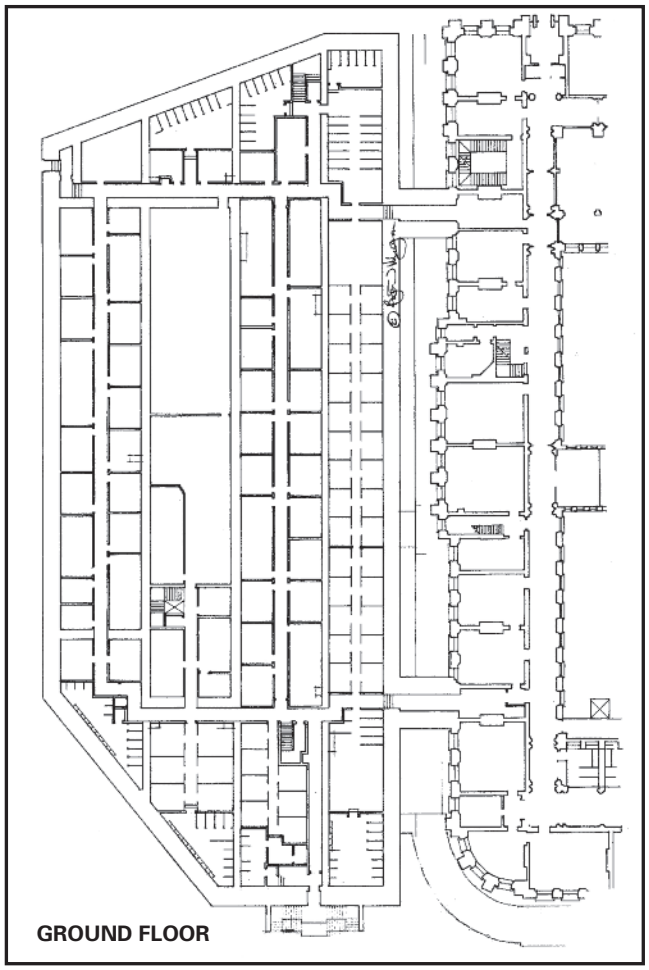
Above the operational levels, and under the protective slab, was a smaller storey with air conditioning, gas filtration and standby generator plant, and on each corner a machine-gun pillbox with firing positions commanding the approaches from the Park and Mall. Rising above all was an air intake and exhaust tower.

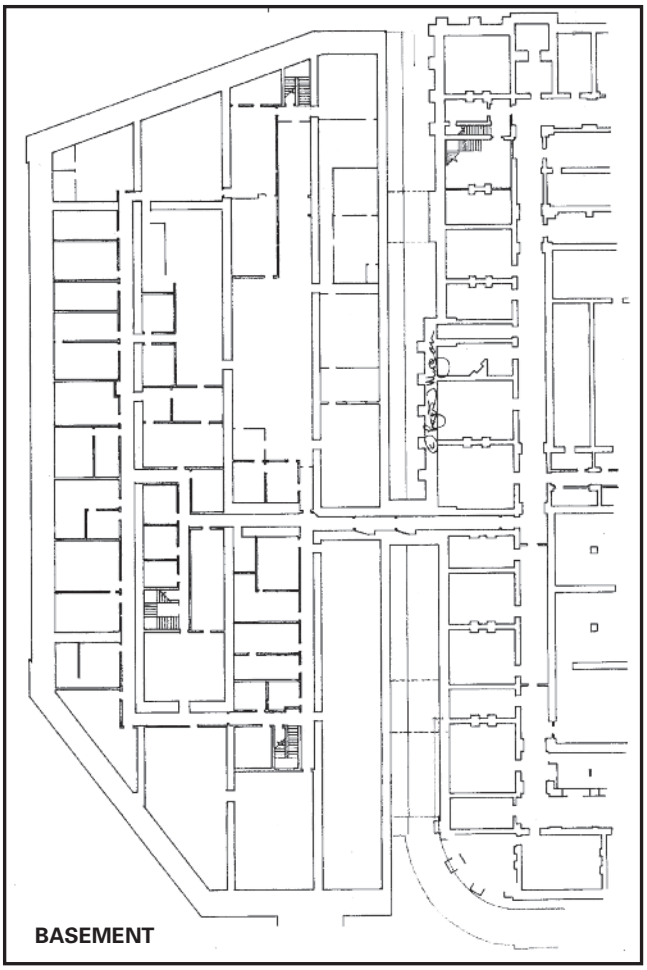
Unlike other bunkers, which were constructed on utilitarian lines in a no-nonsense rectangular design of exposed poured concrete showing the marks of its timber shuttering, some care was taken with the aesthetics of the Citadel, no doubt because of its sensitive situation and also the freedom from the dead hand of the Office of Works.



As all of London's statuary was being dismantled and stored 'for the duration', the removal of the Graspan Memorial was not a problem and it was taken into store at Battersea. More critical was the Royal Naval Division Memorial — an obilisk and fountain — which had been erected on the corner of the Admiralty in 1925. Although it did not impinge on the proposed site for the Citadel, it was so close — within two feet of the new outer wall — that it was dismantled to prevent it being damaged during construction. The picture shows the memorial on the far side of Horse Guards during the Royal Naval Division parade in 1934.

Instead of temporary timber shuttering, a prefabricated concrete block attractively faced with pinkish aggregate was used as shuttering which, once the concrete was poured behind it, became incorporated into the structure. Narrow decorative black horizontal bands mark subtle steps inwards of the facade, openings have expressed lintels, and there is hardly a sustained vertical to be seen. As an exercise in attempting to develop a 'bunker aesthetic' it is highly unusual, and in fact the structure has since been listed Grade II* by English Heritage.





Roger Morgan asked for permission to visit and photograph inside the Citadel in May 2000 but his request was denied. (Roger's claim to fame is that he identified 'the Man who Never was' — see *After the Battle* No. 94.)

The empty base of the Royal Naval Division memorial was left sandwiched between the newly-constructed Citadel and the extension to the Admiralty built in 1895. (English Heritage)

Structurally, two parallel internal walls run the length of the Citadel, dividing it into three strips, and cross walls form a central box of great strength thus forming a 'citadel within the Citadel'. Non-structural breeze-block walls and partitions divided up these spaces into smaller units and corridors. The main operational areas were on the lower more heavily protected floor, the upper floor housing conference rooms, dormitories/ bedrooms, toilets and washing facilities. Access was from the Old Building ground-floor corridor via two bridges, and from the sub-basement via a central tunnel through an air lock of two naval watertight steel doors.

Though completion of the main Admiralty Citadel in 1942 relegated 'IP' to second place as regards reserve accommodation, it continued to be regarded as a valuable stand-by in case the new Whitehall citadel were ever to be put out of action, only ceasing to be operational at the end of 1944.

In May 1945, George Grant of the *Sunday Despatch* was the first journalist to be permitted to see inside. 'We went down through the air-locks to a cool, air-conditioned atmosphere. There was a clatter of teletypes, the buzz of conversation in the biggest telephone exchange I have ever seen; the glimpse of gold braid on the sleeves of high officers. But although my guide told me that 700 people, many of them girls, worked the clock round in three shifts. I could not realise that I was in the most important building in London — if not the whole Empire. In the 156 rooms housing all those people were many of the Admiralty's secrets. I saw dozens of people handling messages to all parts of the world. "There is no place we cannot contact", said a senior member of the Admiralty staff. "We use from this hitherto secret place every known method of communication — teleprinter, radio, voice frequency, and for the not-too-secret messages, the telephone." Every 24 hours 8,000 messages go out through the Admiralty's signals communication branch. In other rooms teletypes chattered to all parts of the world, giving out thousands of words to the Fleet and the shore establishments. Then I was shown the true "holy of holies", the secret Fleet Information Room, where the movements of every craft are plotted, and where the Naval Chiefs of Staff confer when they want an overall picture of what is going on. The Duty Captain showed me round, the whitewashed walls transformed into maps, with plots of movements of hundreds of craft. No matter where a naval action is pending, this room knows all about it. And deeper still is the Radio Room, in touch minute by minute with the outposts of the Empire.' When in 1944 the question was raised about the future of the Citadel, it was reported that 'it was felt that demolition would be a most laborious noisy and costly undertaking' but, because of the informal permission given in 1940 by King George VI for its construction on the Royal Park of St James, 'an Act of Paliament would be required for [it] to be retained'. (Aerofilms)

Winston Churchill (with the umbrella) as First Lord of the Admiralty, had formed the Royal Naval Division in 1914. On April 25, 1925, the tenth anniversary of the landings at Gallipoli in which the division suffered grievously, resulting in Churchill's downfall, he spoke at the dedication: 'Everyone, I think, must admire the grace and simplicity of this fountain, which the genius of Lutyens has designed. The site is also well chosen. Here, under the shadow of the Admiralty building, where eleven years ago, the Royal Naval Division was called into martial life, this monument now records their fame and preserves their memory. . . . But if the place is well chosen, so also is the day. This is April 25, and ten years ago the astonishing exploit of landing on the Gallipoli peninsula was in full battle. And we here, who have so many memories in common, almost seem to hear the long reverberations of the distant cannonade, and we certainly feel again in our souls the awful hopes and awful fears of those tragic hours. A mellow light seems to the mind's eye to surround this monument. The passers-by who in other days pause to drink of its water or to examine its design will be held by something else. The famous lines of Rupert Brooke inscribed upon its panel will make their own appeal and tell their own story to anyone who loves this island or speaks the English tongue. . . . They are quoted again and again. They are printed in newspapers, written in books, blotted by tears, or carved in stone. But they belong to us, to the Royal Naval Division, to the memory of Rupert Brooke and his comrades and companions. They were the inheritance he bequeathed to them, and through them to us all. They are inscribed on this memorial because it is their proper home, and from here, while these stones endure, they will carry to the ears of generations differently attuned from ours, the chant of valiant youth entering willing and undaunted into the Valley of the Shadow of Death.' (ILN)

THE ROYAL NAVAL DIVISION MEMORIAL

The Royal Naval Division was established soon after the outbreak of the First World War as an elite maritime intervention force, made up of those officers and men from the Royal Navy and Royal Naval Volunteer Reserve who were at that time surplus to the requirements of the Navy. It included four battalions from the Royal Marine Light Infantry and it fought in the defence of Antwerp, at Gallipoli and on the Western Front. By the end of the war about 11,500 members of the division had been killed and nearly 45,000 more had been wounded.

Although it was disbanded in 1919, a committee was immediately formed to raise a commemorative memorial. However, the search not only for a site but also for a designer was not easily accomplished and it was not until 1924, almost five years after the memorial was first contemplated, that the eminent architect Sir Edwin Lutyens was commissioned. Lutyens proposed a 'site on the corner of the Admiralty where the balustrade follows the South-West rounded corner looking on to the Horse Guards Parade' but the Memorial Committee 'have little money so whatever is done will have to be modest'. It was felt that a fountain might be an appropriate form of memorial, though the composition would 'have to be purely a sylvan piece of architecture, and not in any way a war memorial, as that would not be tolerated in any of the Royal Parks'.

Lutyens moved rapidly and produced designs for an elegant fountain, designed as a feature that would embellish the balustrade of the Old Admiralty building. The design and location for the memorial were approved by the Royal Fine Art Commission; the Admiralty gave its grudging consent, and the King approved the design and setting for the memorial.

Blow out ye Bugles over the rich dead!
There's none of these so lonely and poor of old.
But, dying, has made us rarer gifts than gold.
These laid the world away, poured out the red
Sweet wine of youth, gave up the years to be
Of work and joy, and that unhoped serene,
That men call age, and those that would have been
Their sons, they gave their immortality.

RUPERT BROOKE, ROYAL NAVAL DIVISION, DIED APRIL 23, 1915.

Left: **From 1951 until 2003 the memorial fountain occupied an unpretentious spot at the Royal Naval College at Greenwich.** *Right:* **Mark Cooper, Ian Devine and Aaron Jarczak of David Ball Restorations begin the re-erection on its original base.**

At the start of the Second World War the memorial had to be taken down so as not to impede the construction of the Admiralty Citadel and the dismantled stones were stored in the gardens of the Royal Hospital at Chelsea, together with many more of London's displaced memorials, statues and monuments. During the summer of 1943 the Secretary to the Memorial Committee was told by the Office of Works that 'on the question of the re-erection of the memorial, I am to explain that no decision will be taken during the period of the war'.

In June 1945, possibly following further prompting, a memorandum was circulated in the Office of Works presuming that the demolition of the Admiralty Citadel would not affect a re-erected Royal Naval Division Memorial, but this memorandum was annotated with the observation that it would not be safe to assume that demolition of the Citadel could be carried out and the memorial re-erected on its old site. This observation was erroneous stating that the original site of the memorial had been built over because the core to the plinth remained on the corner of the balustrade of the Old Building with some two feet clearance between it and the Citadel.

In 1948 it was suggested that the memorial might be relocated near the Royal Naval College at Greenwich where a site on King William Walk, next to the college 'would be most suitable'. In 1950 the Admiralty gave its reluctant acquiescence to the re-erection of the memorial in the grounds of the College 'on the understanding that the Ministry of Works undertakes to remove it, if at any time requested to do so by Their Lordships'. The memorial was re-erected and rededicated in 1951.

One of the principal arguments for relocating the memorial at Greenwich was the significant Naval presence at the Royal Naval College. However, with the closure of the college in the early 1990s, this relevance was lost. It was therefore proposed in 1999 that the memorial should be reinstated on Horse Guards Parade on the site for which it was specifically designed — the site to which it should have been returned after the Second World War had the authorities not been misled into believing that it had been built over. The original plumbing for the fountain still existed so it would be a straightforward exercise to dismantle the stonework and reinstate it in its original position where it would enhance this historic space, regain its original setting and detailing, and be restored to the dignity and purpose intended when it was first conceived.

A committee to Reinstate the RND Memorial was formed to raise the £200,000 necessary, and to provide investment funds to care for the memorial in perpetuity, the project coming to fruition in November 2003.

In the presence of HRH Prince Michael of Kent the memorial was rededicated on the anniversary of Beaucourt Day when Lieutenant-Colonel Bernard Freyburg won the Victoria Cross at Beaucourt-sur-Ancre on November 13, 1916.

Left: **At the rededication on November 13, 2003, the Naval contingent was provided by HMS *Collingwood* (see *After the Battle* No. 97) with the band of HM Royal Marines at Lympstone. It was Chris Page's marvellous idea to have Churchill's original address of 1925 read again by his grandson — without any alteration.** *Right:* **Watched by HRH Prince Michael of Kent, Winston Churchill continued: 'Ten years and more have gone by since this parade ground used to be thronged by bands of volunteers marching off to join the Army amid the blare of music and at their country's call. Nearly seven years have gone since the victory was won; since all the kings and emperors against whom we warred were driven into exile, and all their mighty armies shattered and dispersed.' But how ironic were his next lines delivered standing alongside the Citadel built to counter Adolf Hitler's war: 'Bold indeed will be the tyrant who seeks again to overthrow by military force the freedom they established.'**

History has largely passed by General Frank Andrews in spite of the fact that his name has been memorialised on both sides of the Atlantic. Andrews Air Force base — the Presidential airport in Washington; the former Andrews Barracks in Berlin; Andrewsfield airfield in Britain, all aspire to remember the 'father of the United States Air Force' who was killed in a plane crash in May 1943. As commander of the European Theater of Operations, he may well have led the invasion of France the following year instead of Eisenhower, had it not been for his untimely death on a lonely mountain in Iceland. (USNA)

THE DEATH OF GENERAL ANDREWS

By David Hanson

Frank Maxwell Andrews was born in Nashville, Tennessee, on February 14, 1884. Deciding on a career in the army he entered the West Point Military Academy in 1902 and, on graduation in 1906, was posted to a cavalry regiment. When the USA entered the Great War he was in Hawaii, and he thought if he transferred to the Aviation Branch of the Signal Corps that he would have a better chance of seeing some action. In this he failed but he did get his wings in 1918 and fell in love with flying. From then on he would seize every opportunity to get behind the controls, no matter what type of aircraft.

After the war he — along with Billy Mitchell — campaigned for an independent Air Corps. While Mitchell finished up with a court-martial through his insubordination, Andrews was rewarded with the command of the General Headquarters Air Force in 1935.

At the beginning of the Second World War he was Commanding General of the Caribbean Defense Command but, because of his talent, was soon transferred to command American forces in the Mediterranean. Then in February 1943 he took over from General Dwight Eisenhower as Commanding General of the European Theater of Operations (ETO) with the rank of Lieutenant General.

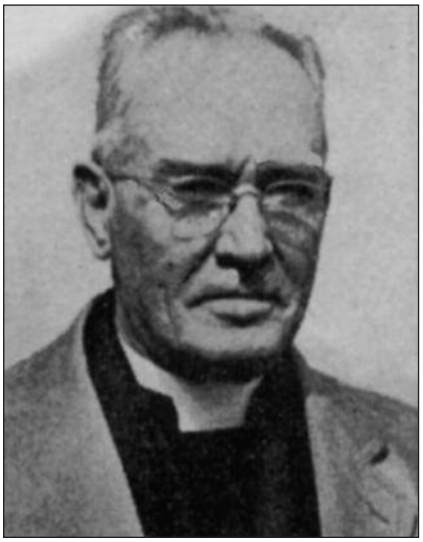
General Andrews (right) with Viscount Nuffield at the inauguration of the British-American Forces Dining Club, in Nuffield House, Halkin Street, Belgravia, London, on March 2, 1943. (IWM)

Frank Andrews was commissioned at West Point in 1906, serving in the cavalry until his interest turned to aviation. He transferred to the US Army Air Service in 1917 gaining his wings the following year. At the end of the First World War, whereas the British Royal Flying Corps had achieved autonomy as the Royal Air Force, controlled by the Air Ministry, the American Air Corps was still firmly part of the Army and under the control of the War Department. Although there was a 'Chief of the Air Service', he had no command authority over combat units, neither was he a member of the General Staff of the War Department. Control of the air arm was split between the nine Army Corps areas of which none of the commanders were airmen. Major Andrews (as he then was) staunchly supported the creation of an independent air force under a unified command and, after much debate, an arrangement was introduced in 1934 whereby the force would be subdivided between two separate commands: combat under a new GHQ Air Force, and support run by the Office of the Chief of the Air Corps. Andrews, currently commanding the 1st Pursuit Group in Michigan, was brought in by the Army Chief-of-Staff, General Douglas MacArthur, to take charge at GHQ Air Force with the rank of Brigadier General. Andrews worked tirelessly to consolidate the combat units and to bring a new long-range bomber on stream which was essential if the air force was ever to carry out independent missions. However the Army derided the B-17 Fortress, calling it 'Andrews' Folly', and when his four-year term was up, the new Chief-of-Staff, General Malin Craig, banished Andrews to a minor post in Texas at his original permanent rank of Colonel. However, when President Roosevelt replaced Craig with General George C. Marshall, one of his first actions was to bring back Andrews as G-3 Assistant Chief-of-Staff with the rank of Brigadier General. It was a vital appointment — the first airman to serve on the General Staff — and one where he could advise Marshall on the development of effective air power which would be vital in the coming war. In 1940 Andrews was able to put his ideas into practice when he was sent to organise the Panama Canal Air Force which became a model for all the other US Army air forces. The following year he was promoted to Lieutenant General commanding the Caribbean Defense Command — the first airman to head a theatre command. With America's entry into the war, Marshall moved quickly to give the Army Air Force autonomy which came into being on March 9, 1942 under a new commander, General Henry H. Arnold. Meanwhile Lieutenant General Andrews was assigned commander of US forces in the Middle East where he set up the Ninth Air Force. Early in 1943, General Marshall appointed Andrews as US Commander of the European Theater of Operations, charged with directing the bombing campaign against Germany and planning the eventual landings on the Continent. (USNA)

Iceland was part of the ETO, and as soon as the spring arrived General Andrews wanted to carry out a tour of inspection there. Accompanying him would be Brigadier General Charles H. Barth, Chief-of-Staff ETO; Colonel Morrow Krum, Andrews' PR representative; his ADCs, Lieutenant Colonel Fred A. Chapman and Major Theodore C. Totmad, and Captain Joseph T. Johnson, Andrews' personal aide. Also with the party were Colonel Frank L. Miller and Major Robert A. Humphreys of the Corps of Chaplains, and Bishop Adna W. Leonard, Methodist Episcopal Church, Washington, DC. The bishop was chairman of the General Commission of the Corps of Chaplains and, along with his staff, was also on a tour of bases.

In November 1942, General Andrews' Chief-of-Staff was Colonel Uzal Ent who went on to lead the massed daylight raid on the Rumanian oil wells at Ploesti in August 1943; now his Chief-of-Staff was Brigadier General Charles H. Barth *(above)*.

The ETO public relations officer was Colonel Morrow Drum *(above)* **who Andrews had inherited from General Eisenhower when the latter was made Supreme Commander for Operation 'Torch', the invasion of North Africa.**

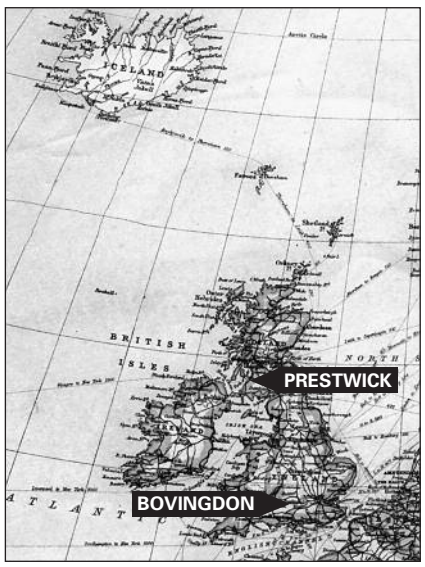


The head of the Corps of Chaplains covering both the US Army and Navy was Bishop Adna W. Leonard *(above)*. **All three were to accompany General Andrews to Iceland so, including the crew, all told there would be 15 on the trip.**

Bovingdon just west of Hemel Hempstead had been built as a standard Class A bomber aerodrome and, although initially assigned to No. 7 Group of RAF Bomber Command, it was passed to the USAAF in August 1942 becoming Station 112 (see *Airfields of the Eighth Then and Now*). Nominally the home of the 92nd Bomb Group, it became an operational training base for B-17 crews, and when the 92nd moved out to Alconbury in January 1943, they left behind a cadre to form the 11th Combat Crew Replacement Center. Being the nearest American airfield to the Eighth Air Force headquarters, some 12 miles to the south-west at High Wycombe, Bovingdon was also regularly used by HQ personnel.

US Air Transport Command (ATC) ran a regular service across the North Atlantic via Iceland using the new Douglas C-54 Skymaster. Although military aircraft, they were built to airline standards with plush seats, heating and sound-proofing, and would have been ideal but instead General Andrews asked the Eighth Air Force to provide him with a Consolidated B-24 Liberator. He asked for six seats to be fitted into the bomb bay but there was not enough time for this to be done, so the passengers, including the 68-year-old bishop, had to sit on the floor of a cold, draughty and noisy bomber. The reason for the choice seems to be that as Andrews was checked out on the B-24, he knew that he could take the controls, and it would give him independence.

The flights of non-operational aircraft across the North Atlantic were controlled by the joint RAF/ATC Transatlantic Aircraft Control at Prestwick. All aircraft had to land at Prestwick so that their crews could be briefed on the special procedures, and issued with such things as weather forecasts, convoy positions, radio frequencies, maps and landing charts. No aircraft was allowed to leave



Prestwick in Ayrshire was opened in 1936 as a grass airfield but by 1941 had become a huge transatlantic terminal with a main runway 6,600 feet long. Most aircraft departing or arriving from North America staged through Prestwick, the first B-17s to reach the UK landing there on July 1, 1942 — destined for the 97th Bomb Group.

Although the normal aircraft used by the Americans for long-distance flights was the C-54 Skymaster, General Andrews insisted on using a B-24 with which he was familiar as it would enable him to take over the controls. A Liberator was therefore brought in from the 93rd Bomb Group at Hardwick. *Above:* An early crew line-up for combat missions of *Hot Stuff* was (standing) Lieutenants Jacobson, Shannon, Gott and Lentz and (kneeling) Staff Sergeants Rondou, Craighead, Durham, McQueen, Jeffers and Farley. However, for the flight to Iceland, by-then Captain Robert H. Shannon was not best pleased to have his co-pilot, 1st Lieutenant John H. Lentz, replaced by the unknown quantity of General Andrews. Three other member of his crew were also excluded.

This is not Shannon's 41-23728 *Hot Stuff* but it is a Liberator at Bovingdon, seemingly being guarded for a VIP mission.

until it had been accepted by Iceland, and in times of bad weather or congestion this led to long delays.

General Andrews had been held up at Prestwick before and he was determined that it was not going to happen again. So a meeting was arranged between his aide, Captain Johnson, and Colonel Paul E. Burrows of the ATC to try to arrange a non-stop flight to Iceland. As General Andrews held a Command Pilot rating, as well as Aerial Observer and Combat Observer ratings, and had been awarded the DFC for flying missions in difficult conditions, it was considered that he was qualified to undertake such a flight. Colonel Burrows said that although ATC would co-operate as much as possible, they would not be responsible for the flight. Also, because of staff shortages, it would not be possible for anyone from Prestwick to fly down to carry out a briefing, but all the necessary paperwork would be sent down to Bovingdon in Hertfordshire which had been chosen as the point of departure as it was an ATC base.

The Liberator chosen for the flight was not any old aeroplane. Captain Robert H. Shannon and his crew serving with the 330th Bombardment Squadron of the 93rd Bombardment Group at Hardwick had just one more mission to do before becoming the first Eighth Air Force crew to have completed the magic 30 missions. Then they were to return to the USA in their faithful B-24D 41-23728 *Hot Stuff* and make a triumphant tour of the country promoting War Bonds.

On April 27, 1943, secret orders were received at Hardwick for *Hot Stuff* to be prepared for a long flight, and six seats to be fitted in the bomb bay (which was not done). The aircraft was then to be flown to Bovingdon on May 1 although the bombardier and two of the gunners would not be required. The crew therefore comprised Captain Shannon as pilot; 1st Lieutenant John H. Lentz, co-pilot; Captain James E. Gott, navigator; Sergeant Lloyd C. Weir, engineer; T/Sergeant Kenneth A. Jeffers, radioman, with Staff Sergeants Paul H. McQueen and George A. Eisel as gunners.

After arrival at Bovingdon on Saturday, May 1, the three officers in the crew had to report to Colonel William H. Cleveland at Pinetree, the Eighth Air Force HQ (see *After the Battle* No. 87). The colonel told them that as a reward for completing the most missions they had been chosen to fly General Andrews on a secret mission. The general would act as co-pilot, so 1st Lieutenant Lentz would not be required. They were then given a lecture on flight safety and ditching.

Shannon, Gott and Lentz returned to Bovingdon with mixed feelings. While they realised that it was an honour to be chosen to fly Andrews and his staff, they would rather that their last mission had been something more familiar to them like dropping bombs on the enemy. And Bob Shannon was certainly not happy at having John Lentz replaced. They were a good team and Lentz always took over any instrument flying as this was not Shannon's forte.

General Andrews' aide, Captain Johnson, also arrived at Bovingdon and made himself known to the base commander, Colonel Robert Taylor, and 1st Lieutenant William Ruelmann, the Assistant Operations Officer. It seems that Colonel Burrows' permission for the direct flight had not reached Bovingdon, and both men said they would not be able to give a clearance unless they were in possession of all the necessary paperwork.

Not much of a comparison as not much of the airfield remains today. Since we took the aerial shot opposite in 1978, The Mount prison has been constructed on the former technical site and the main runway has now found another use as a venue for a Sunday market.

Back in '78 the control tower — scene of the last-minute drama in May 1943 — still stood abandoned amid a field of grain. Now it, too, has been swept away.

On Sunday, May 2, Captain Johnson returned with the material which had been sent down from Prestwick. This comprised various maps and charts covering the route, radio frequencies, the North Atlantic Route Air Manual, two sheets of briefing material and Notices to Airmen. He then took Shannon and Gott to an empty room and appraised them of their destination for the first time. They were then given a two-hour briefing by Lieutenant Ruelmann although what precisely this covered is not recorded.

That evening Shannon went to see about getting a weather forecast for the trip but was told by Sergeant Vaughan Welty that they only covered as far as Prestwick. The sergeant then rang Colonel Cordes F. Tieman who was in charge of the US VIII Bomber Command Weather Section but again the area covered did not extend beyond Prestwick. However the colonel said he would make arrangements to get a forecast. He then rang Prestwick and asked for the RAF weather reports from Iceland for the period 0400 to 0600 hours the next day to be sent to him and to Bovingdon.

By 0800 hours on Monday, May 3, the weather reports had arrived. Captain Morris R. Clark, the meteorological officer at Bovingdon, was not happy with what he saw and rang Colonel Tieman. He said that he had no experience of making forecasts for that part of the world and did not think that he was qualified to do so. Having seen the reports it was obvious that the weather in Iceland was not fit for flying, so Tieman told Clark not to issue a forecast but to leave it to Prestwick to send their forecast down to Bovingdon.

Captain Shannon and the rest of the crew went out to *Hot Stuff* to taxi the aircraft to a position convenient for the passengers to board, while Captain Gott went to the control tower to get their clearance. There he was told that he could not be issued with clearance for the direct flight to Iceland because he did not have the necessary weather forecast or convoy positions. When he was joined by Captain Shannon they both tried to argue that they must make the flight non-stop, but Colonel Taylor made it clear that they either wait at Bovingdon until the forecast and convoy positions arrived, or they call at Prestwick for them. When General Andrews arrived he was angry and said that everything should have been there ready for them, but he agreed to land in Scotland so clearance for a local flight from Bovingdon to Prestwick was issued.

Everyone boarded the aircraft with Andrews taking the left-hand pilot's seat. Just before the engines were started Shannon went back to the tower to see if the forecast had arrived from Prestwick but it had not. (It came through an hour after they departed.)

Take-off was at 0922 hours (Double British Summer Time). Their route took them northwest to Worcester, Rhyl, the Isle of Man and Monrieth. At first the weather was poor but by the time they reached Scotland it had improved considerably, and the further north they went, the better it got.

It must be remembered that this was a bomber crew and, except for ferry flights, this flight was not the sort of mission they were used to. Sergeant Jeffers had 259 operational hours experience as a radioman but during this flight he was put under extreme pressure. All communications to and from the aircraft were in cypher, and sent in morse. The four stations that he worked with between Bovingdon and Prestwick thought that he was slow, and one reported that his morse was poor although this may have been because of interference.

They had been issued with the call-sign '1MPE' but when details of the flight were passed from Bovingdon to Prestwick, the wrong call-sign was sent. So when Jeffers contacted Prestwick it took some time to identify the aircraft. Then there was more

***Hot Stuff* was all set for a triumphant return home to the USA . . . instead she left Bovingdon at 9.22 a.m. on Monday, May 3, 1943 on her last flight.**

confusion when 1MPE asked Prestwick for the weather at RAF Templeton, Pembrokeshire. This was corrected to Reykjavik, to which Prestwick replied they would get it when the aircraft landed, but another request for the Reykjavik weather met with the reply that it was unfit for flying and they must land at Prestwick. The next message from 1MPE stated if they did not receive the Icelandic weather they would assume that it was okay for flying and would proceed direct. Then, just as Prestwick was about to reply, there was a complete power failure at the airfield.

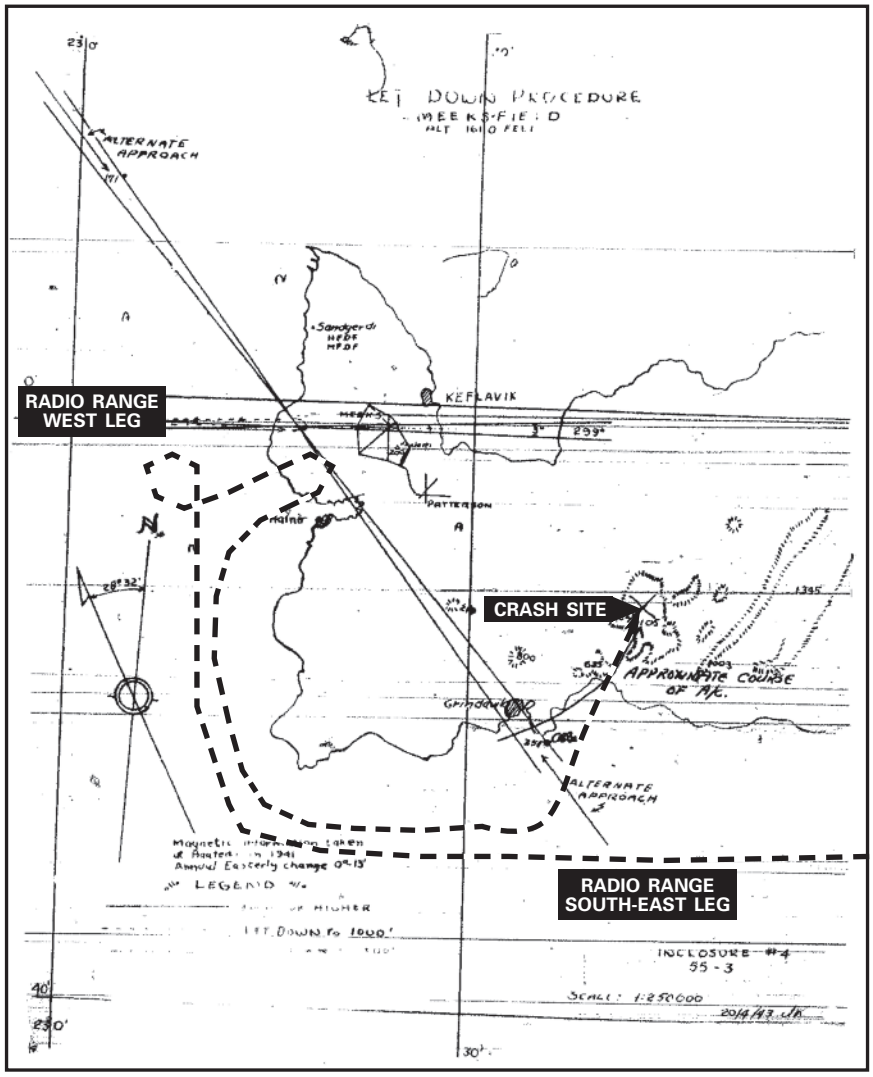
Waiting at Prestwick to greet the distinguished visitors was the station commander, Colonel S. C. Palmer. Meals had been prepared and steps taken to make their stop as short as possible. However it soon became obvious that General Andrews had no intention of landing there. A very frustrated Major James Cochran in the control tower asked Stornoway to pass the latest Reykjavik weather report to *Hot Stuff*. This was done via the RAF Stornoway HF/DF Station located near the Butt of Lewis at Dell. Andrews thereby learned that the ceiling at Reykjavik was 1,000 feet and visibility two miles. A few minutes later Stornoway was again asked for the weather which they interpreted to mean that at Stornoway. This was sent but the miles and feet were transposed. The mistake should have been obvious but it was not corrected. 1MPE was then asked if they intended landing at Stornoway to which a reply of correct was received. Dell was then asked for a bearing and a series of dashes were sent but, because of interference, it was not possible for the bearing to be given. Whether this request implied that Andrews was considering landing at Stornoway to await an improvement in the Iceland weather is not known; what is clear is that the Liberator continued on its way north, and was last heard by Dell calling Iceland on the wrong frequency.

When the power was restored at Prestwick, Major Cochran went to the Transatlantic Aircraft Control (TAC) and asked them to send details of the flight to Iceland. However, as the aircraft had failed to carry out the correct procedure, only being cleared as an internal flight, TAC did not have any information on its flight and so refused to have anything to do with it! Nevertheless, Major Cochran finally managed to persuade TAC to send a very brief warning message which read: 'B-24 1MPE Bovingdon 07:22 Prestwick 00:00 to Reykjavik'. [*GMT Times.*]

The weather was fine until they reached a point about 60 miles from Iceland when they saw a solid wall of cloud ahead. By the time they reached the shore they were down to 500 feet to keep below the cloud . . . and it was raining. Landfall was made just east of Vik, where they turned west and began to follow the coast. There was no radar coverage in Iceland at that time, and aircraft reporting relied on coast watchers and the sound locators of the US 556th Signal Aircraft Warning Battalion. Visual sightings of the aircraft estimated its height variously between 60ft and 500ft.

The bad weather was also playing havoc with radio signals, and the RAF HF/DF Station at Sangerdi heard 1MPE calling very faintly on two frequencies but was unable to make contact. Other stations in Iceland also tried to make contact but without success.

As *Hot Stuff* approached the RAF airfield at Kaldadarnes, Andrews suggested that they take a look at it just in case they had to land there. When the Liberator began to circle the airfield the controller tried to make radio contact but, receiving no reply, he then gave the aircraft a green on the Aldis lamp as an invitation to land. After carrying out five circuits and making a very low pass down the runway, *Hot Stuff* then resumed its course to the west.



A reception committee had been laid on at Prestwick for the General at which point onward passage to Iceland would be confirmed, depending on the weather. However General Andrews had experienced delays at the Scottish airfield before so he was having none of it this time. He obviously intended reaching Iceland without delaying for formalities, and there would seem to be little doubt that he over-ruled Captain Shannon who would have technically been in command of the aircraft. The 24th Composite Wing in Iceland submitted this plan with their report. We have added the approximate course of the Liberator (dotted line) to the spot where it crashed on Fagradalsfjall.

When the B-24 reached a position where they could pick up the west leg of the Meeks Field (Keflavik) radio range they began to circle just off the coast. To those on the ground it appeared that the aircraft was lost, but in fact Andrews, Shannon and Gott were considering what to do. Although Reykjavik was the intended destination, it was not suitable in those weather conditions, being in a built-up area with short runways. Gott, reading from his notes, also said that the west leg of the Meeks Field radio range could not be relied on in bad weather and had been known to guide aircraft towards high ground. So it was decided that they would attempt an approach to Meeks Field but, if this was unsuccessful, they would return to Kaldadarnes, yet after flying only a short distance the approach was abandoned and they set off back the way they had come.

At the same time the sound locators reported that the Liberator was making for Reykjavik but instead they had picked up an RAF Fairey Battle which had taken off from Reykjavik to carry out some local flying. The Battle caused so much confusion to the sound plot that it was ordered to land but by the time it did so everything was silent. There also had been no visual sightings for some time — *Hot Stuff* had vanished!

After the Liberator set off to return to Kaldadarnes, George Eisel in the tail turret noticed a difference in the handling of the aircraft. Bob Shannon had a reputation for handling his bomber like a fighter and Eisel immediately recognised the style of his usual pilot. Shannon was now at the controls. Although he had the advantage of the coast being now on his side of the aircraft, the view from the cockpit of the Liberator is poor at the best of times, never mind in low cloud, mist and rain, and he had to make very steep turns as he struggled to keep the coast in sight.

When Kaldadarnes reported that the Liberator had not landed there the Senior Control Officer at Meeks Field became concerned. Messages were sent to other airfields within the range of a B-24, asking them to report if it landed there. Search and rescue in Iceland was in the hands of No. 15 Group, RAF Coastal Command, but in the prevailing weather there was little that they could do other than broadcast a message to shipping to report any sightings, and prepare for a search the following morning.

Except for the one brief message from Prestwick, Iceland had no information on the identity of the mystery Liberator, so Prestwick was asked to furnish more information.

The bad weather had put the wireless link between Iceland and Prestwick out of action, so it was evening before the reply was received: '1MPE Bovingdon 07:22 Prestwick 09:14. Last heard calling Iceland at 13:41. 1700 Gallons of fuel. 14 POB [*personnel on board*] including USA General'. Meeks Field replied at 2212 hours with 'What General? Aircraft overdue. Must have more information' but no reply was received to this despite a repeat being sent. In Britain the seriousness of the situation was realised, and in the early hours of the morning telephones began to ring with the news that Generals Andrews and Barth were missing.

Tuesday, May 4, dawned fine and clear in Iceland and all available aircraft were soon in the air. RAF Coastal Command aircraft on patrol from bases in Britain were also briefed to keep a look-out, as well as transport aircraft flying in the area. At 0652 hours a message was sent to Prestwick reading: 'Ship now missing. Request information on plane and POB' to which Prestwick replied: 'B-24 cleared Bovingdon to Prestwick but failed to stop. 1700 Gallons. Andrews aboard'. This was followed up with 'Extremely important military personnel aboard. Request all information on this aircraft. If none instigate search. Endurance 11 hours'. At 1255 Prestwick was asked: 'Send full rank and serial numbers of POB and engine numbers of aircraft'.

Above: **This is the rear turret where the sole survivor, Staff Sergeant George Eisel, was rescued still alive on Tuesday. He had been trapped for nearly 24 hours.** *Below:* **The left wing bearing evidence of fire damage. (USNA)**

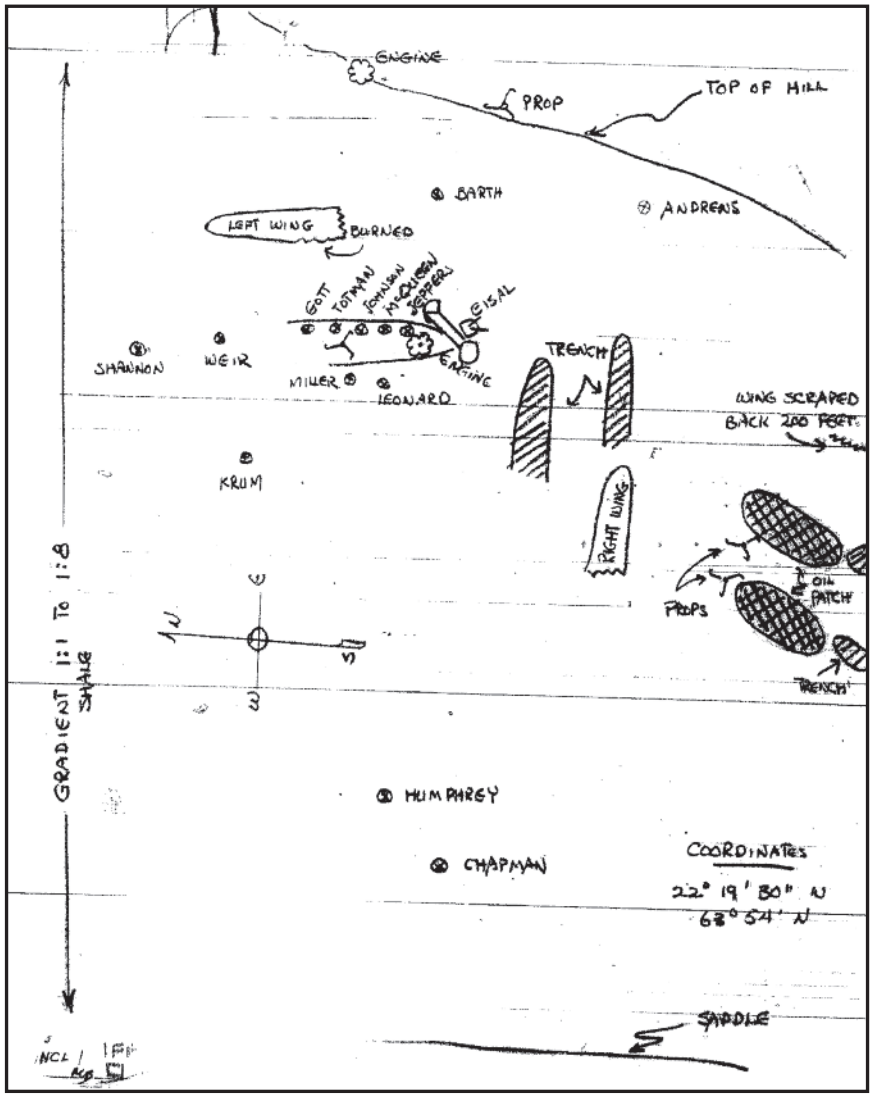
It was not long before one of the search aircraft reported sighting the remains of a machine on a 1,600-foot mountain called Fagradalsfjall, about five miles north-east of Grindavik. The pilot reported that the aircraft appeared totally destroyed with no chance of survivors but when soldiers arrived at the crash site they were amazed to find George Eisel trapped in his turret, alive and with apparently only minor injuries. He was admitted to hospital with a fractured rib, cut wrist and a pressure ulcer on his right ankle; later he was also found to have a fractured vertebra.

Everyone else in *Hot Stuff* had died instantly. General Andrews was found still strapped in his seat which was identified as the co-pilot's. The aircraft had struck an 1,100-foot-high flank of the mountain with its right wing, about 150 feet below the crest while in level flight. It seems that the aircraft had been flying just below the cloud base when it had suddenly ran into low cloud caused by saturated air blowing onto the mountain, blinding the crew. The wreckage was in a comparatively compact area, and surprisingly, heavy parts such as the engines had not rolled down the steep gradient. The only recognisable piece of wreckage was the tail and Eisel's turret.

A complete news black-out went as far as contacting people who had been in Iceland on the day, and may have heard rumours of the accident, and it was not until May 5 that the US War Department Press Branch finally released the news.

The USAAF investigated all accidents thoroughly but, because of the special circumstances surrounding this particular loss, it was decided to hold two further parallel inquiries: one on behalf of the ETO and the other by the Eighth Air Force. The board members for the USAAF were Colonel Joseph S. Holtner, Lieutenant Colonel Thomas A. Holman and Major Robert C. Bagby. Representing the ETO were Brigadier General Charles C. Chauncey and Colonel Frank B. Jordon, and for the Eighth Air Force Major General Follett Bradley, Colonel Howard G. Bunker, Brigadier General Chauncey and Air Vice-Marshall N. H. Bottomley of the RAF. Evidence was gathered by the Acting Inspector General, Major William P. Young.

All three investigations came to the same conclusion: that the pilot had momentarily lost visual contact with the ground in bad weather, and had collided with the mountain in full flight. As the position where the aircraft had strayed inland coincided with the south-east leg of the Meeks Field Radio Range, it was thought possible — but unlikely — that they were attempting to pick up the beam. No blame was put on anyone but the USAAF did criticise the pilot for persisting in his attempts to land in Iceland in the adverse weather conditions, and without the aid of a serviceable radio.



Lieutenant Colonel T. A. Holdiman presented this sketch to go with the report to illustrate the scene which the rescue party found on reaching the crash site.

1st Lieutenant Chester R. Dolan, the Engineering Officer with the 31st Ferrying Squadron of the North Atlantic Command of Air Transport Command was one of the investigating officers. 'On May 4, 1943 upon arriving at the location of the wreckage of B-24 aircraft, Serial No. 123728, I saw the body of General Andrews fastened by the safety belt to one of the airplane seats. The seat to which it was fastened had adjusting knobs on the right side. Personal examination of other B-24 aircraft by me shows that the pilot's seat of a B-24 has adjusting knobs on the left side while the co-pilot's seat has such knobs on the right side. I called the hospital where Staff Sergeant George A. Eisel, sole survivor of the wrecked B-24, is being treated. A nurse there said that she would ask him for me if the ship in question had seats in the rear fuselage. She said his answer was that there were no seats in the rear fuselage. To the best of my knowledge and belief in view of the above, it is my opinion that General Andrews was riding in the co-pilot's seat.' *Right:* **In this picture, the body of Sergeant McQueen lies on top of that of Sergeant Jeffers. The pockets of each man were turned out to look for identification before being removed in order to prepare the plan above. The next picture in the series of Sergeant Jeffers is too awful to publish. (USNA)**

Above: **McQueen's body lies under the cover surrounded by the men on the left as Jeffers is removed on the stretcher.** *Right:* **Örn Ingólfsson and his brother Birgir investigated the crash site for us. Using an old dirt road dating from the war which was used to recover the bodies, they drove in a 4×4 for about 25 minutes across lava rock. Very little remains to be seen, the main wreckage having been salvaged. (USNA)**

But for his untimely death, Frank Andrews would undoubtably have been in charge of the Normandy landings. He was originally buried in Iceland along with the others aboard *Hot Stuff* but at the end of the war was transferred to Arlington National Cemetery. His name is remembered in the Andrewsfield airfields in Maryland in the US, and Essex in the UK, as well as in General Andrews Airport at Ciudad Trujillo in the Dominican Republic.

Below: **A supercharger, prop boss and remains of an undercarriage leg — sad remnants amid the barren landscape.**

FRANK MAXWELL ANDREWS
LT. GENERAL, AIR CORPS
UNITED STATES ARMY
1884 — 1943
BELOVED WIFE
JEANNETTE ALLEN ANDREWS
1888 — 1962